

# **∂**GENER∩L



FUJITSU GENERAL LIMITED



# **DESIGN for COMFORT**



## The AIRSTAGE<sup>™</sup> series provides high energy savings, comfort, and reliability to the end user.

The design, installation, and servicing were developed based on the concepts of high flexibility and simplicity.

We offer an abundant VRF system lineup to match regional and customer needs by providing the best combination from low to high capacities and from giving priority to conserving installation space to giving priority to high efficiency.

## For SMALL BUILDING

/AIRSTAGE J- [[] Heat Pump type for heating or cooling operation 8 HP - 12 HP 3 Models 14 HP - 16 HP & NEW 18 HP 3 Models/3 phase



Heat Pump type for heating or cooling operation 4 HP - 6 HP 6 Models/Single phase, 3 phase



## AIRSTAGE J-IIS

Heat Pump type for heating or cooling operation 4 HP - 6 HP 3 Models/Single phase



# For LARGE BUILDING

# Airstage VR-II

Heat Recovery Modular type for simultaneous heating and cooling operation 8 HP - 48 HP 34 Models Space saving combinations: 8 HP to 48 HP/21 models Energy efficiency combinations: 16 HP to 44 HP/13 models



Heat Pump Modular type for heating or cooling operation 8 HP - 54 HP 39 Models Space saving combinations 8 HP to 54 HP/24 models Energy efficiency combinations 6 HP to 46 HP/15 models



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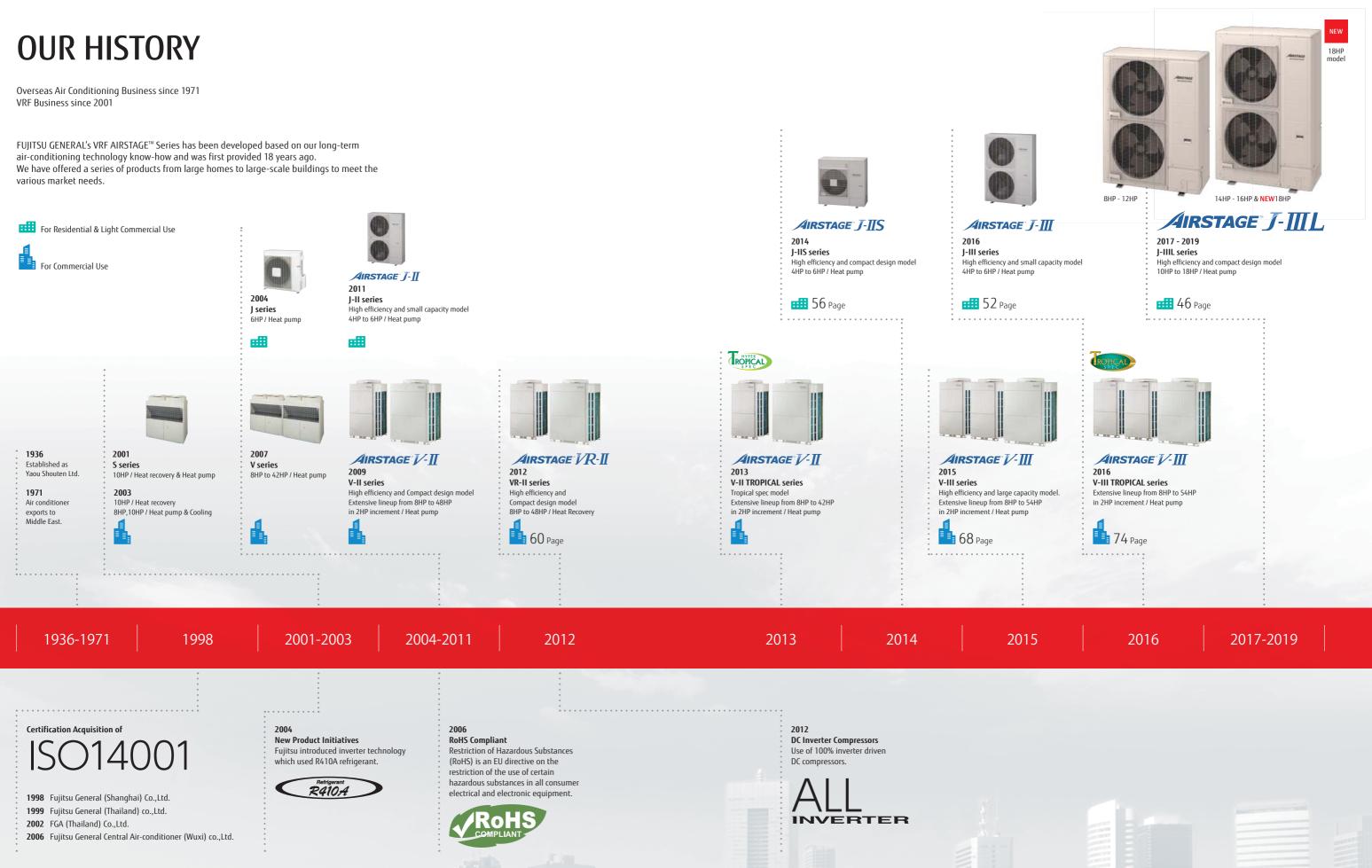
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# WORLD WIDE LOCATIONS

Promoting Globalization from a global perspective while emphasizing the actual local situation in the field under the aim of advancing our five-base system (Europe, Middle East, Asia & Oceania, Americas, and Japan)



JAPAN Head Office



New Technology Research Building (Japan)





Fujitsu General Orient International Electronics Sales (Shanghai) Co., Ltd. (China) (Taiwan)



Fujitsu General (EURO) GmbH (Germany)

6



Fujitsu General (U.K.) Co., Ltd. (U.K.)



Bangkok Office (Thailand)



Fujitsu General Air Conditioning (UK) Limited (U.K.)



(Singapore)



Fujitsu General Commercial Air Conditioning Italia S.p.A. (Italy)







Fujitsu General (Aust.) Pty Ltd. (Australia)





Fujitsu General Do Brasil Ltda. (Brasil)



 Air conditioner solution center "THE AIRSTAGE" in Manhattan, New York

• Fujitsu General America, Inc

• Fujitsu General Do Brasil Ltda

Fujitsu General Air Conditioning (UK) Limited
Fujitsu General (U.K.) Co., Limited

• Fujitsu General (Euro) GmbH

• Fujitsu General Commercial Air Conditioning Italia S.p.A.

• Fujitsu General (Thailand) Co.,Ltd. Bangkok Office

• Fujitsu General (Middle East) FZE





CENTER "THE AIRSTAGE" (U.S.A.)

# **GLOBAL BUSINESS ACTIVITIES**

We are engaging in advertising, human resource development, CS activities, and social contribution activities worldwide. These activities have been recognized throughout different regions by the awards we have been honored with.

## North/South America



AHR Exp



HVAC trade show in Brasi



Distributor mee



Call cente

# Middle East



Fxhibitio





Technical semina



Еигоре



HVAC trade show in Europe countries



Presentation & training

2012





ACR Show



Service & Maintenance

#### International authoritative design awards



8







Super brand is the world's largest independent arbiter of branding





The product design competition has existed since 1955. Its award, the "red dot". is an internationally recognized quality seal.



# Oceania





Charity (Christchurch)







New Product Presentation Meeting



VRF training





Call center



Canstar Blue Most Satisfied Customers Award



China State Construction Engineering Luban Prize



The Good Design Award is sponsored by the Japan Institute of Design Promotion and is awarded once a year for an item of excellent design.





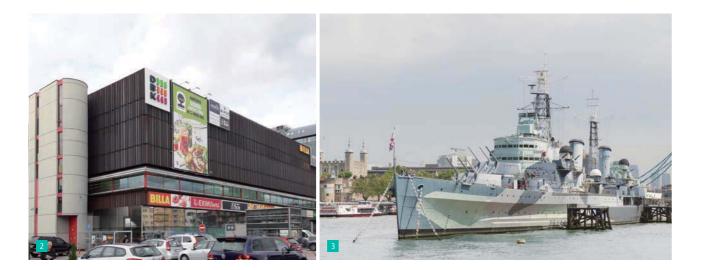


# **PROJECT REFERENCE**

Our product is popular because of its high quality, energy saving, and easy installation, and so has been installed in a wide range of building types including high-rise office buildings, stores, hotels, public facilities, schools, hospitals and residential.

# Fujitsu General's Products have been installed in over 50 countries worldwide.









For Light Commercial

1 Shop in Europe 2 Shop in Europe 3 Museum in Europe 4 Hotel in Oceania 5 Restaurant in Middle East 6 School in U.S.A. 7 Hospital in Asia 8 Shop in Asia







9 Office in Europe 10 Office in Europe 11 Office in Europe 12 Hotel in Asia

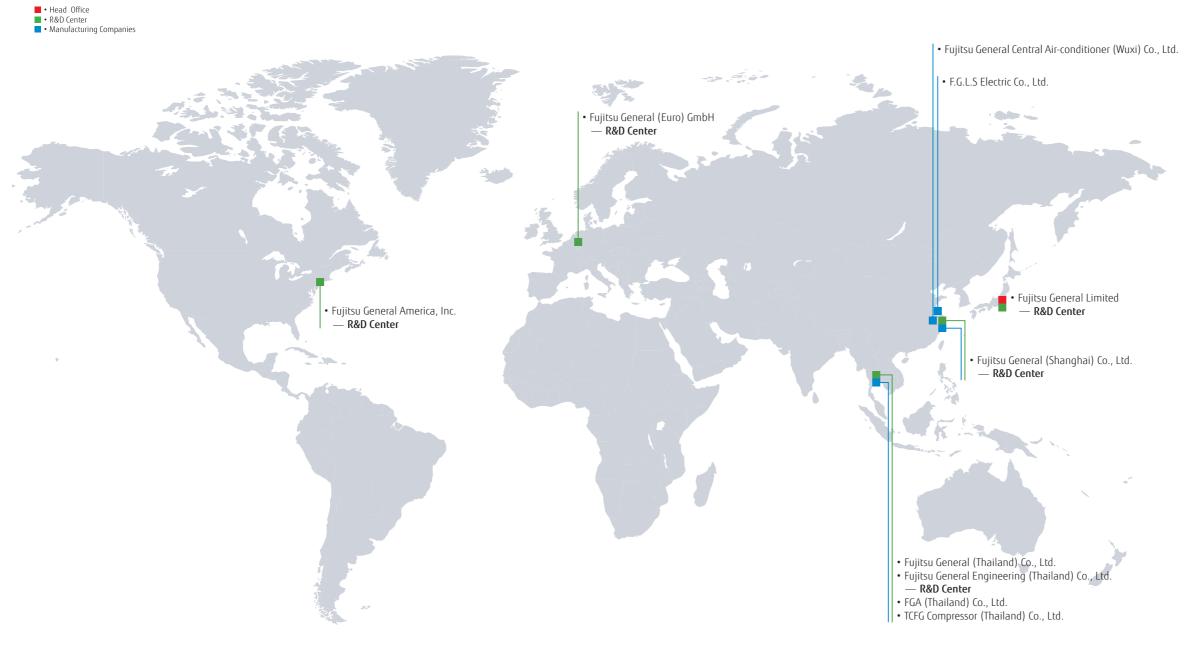




#### For Commercial

# **GLOBAL DEVELOPMENT & PRODUCTION BASES**

R&D centers are set up in five countries of Japan, Europe, Asia, China and North America in the world. We pursue the environmental property and comfort to meet each area needs.



#### R&D Center & New Technology Research Building



R&D Center in Fujitsu General (Shanghai)

R&D Center in Fujitsu General Engineering (Thailand)



R&D Center in Fujitsu General (EURO) GmbH (Germany)



R&D Center in Fujitsu General America (U.S.A.)



JAPAN Head Office R&D Center and 60 m Height Difference Testing Tower (Japan)

New Technology Research Building in Japan Head Office



#### **Overseas Manufacturing** Companies



Fujitsu General (Shanghai) Co., Ltd. (China)



F.G.L.S. Electric Co., Ltd. (China)



Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd (China)



Fujitsu General (Thailand) Co., Ltd. (Thailand)



Fujitsu General Engineering (Thailand) Co., Ltd. (Thailand)



FGA (Thailand) Co., Ltd. (Thailand)



TCFG Compressor (Thailand) Co.,Ltd. (Thailand)

# **HIGH QUALITY DEVELOPMENT & PRODUCTION**

# Advanced Research Facility and Equipment

#### **Performance Testing**





Air Volume Measurement Room Measure air volumes of the air conditioners from compact RAC models to VRF.

#### Measure the cooling/heating capacity by measuring the inlet and outlet temperatures, humidity, and air volume of the air conditioner.

Calorimeter

Silent Room Measure the operating sounds of air conditioners with the sound reflection-proof walls and ceiling.

#### **Reliability Testing**



Constant Temperature Room **Practical Test Room** Check on the product performance in cooling/heating operation under the various temperature and humidity conditions.

#### **Transportation & Handling**



Compressibility testing



Check on whether the air

the actual house conditions is

Vibration testing

sustainable.



**Shower Test Room** Check on whether the electrical conditioners performance under box of the outdoor unit is protected by rain waters with Typhoon like wind.



# **Testing Laboratory**

Fujitsu General EMC Laboratory Limited





# FACILITIES

# Acquisition of ISO 9001 and ISO 14001

ISO 9001 ISO 14001 () Number of companie

Each of overseas production bases (5 companies) has completed the acquisition of ISO 9001 and ISO 14001 individually. In 2012, overseas sales bases (11 companies) acquired the certification

# **High Product Quality**

North America

Balancer inspect

 Pressure resistan Primary lea

 Insulation resistance • Withstand voltage

Performance

## 60 m Height Difference Testing Tower

Fujitsu General is one

manufacturers with an R&D

Center in Japan. We provide

customers with the highest

quality and performance

using these facilities.

of Japan's leading

compressor for reliability



Objective is to confirm oil circulation of



of ISO 14001.

# Assurance

All Fujitsu General factories have

acquired ISO 9001, and have built a quality control system common around

the world. High quality products are

stringent quality inspections. **Receiving inspection** 

test report. European regulation

RoHS inspection is also performed

by special test department in-house.

Total number inspection is performed

Stringent quality inspection is carried out at all production processes. High

quality is maintained by stringent

checks by inspectors and repetitive

especially on main parts to remove

Stringent product quality

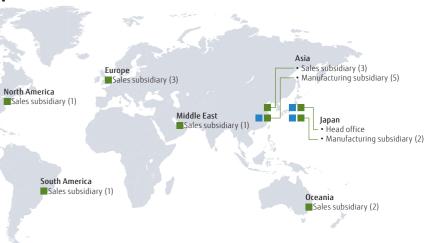
defectives.

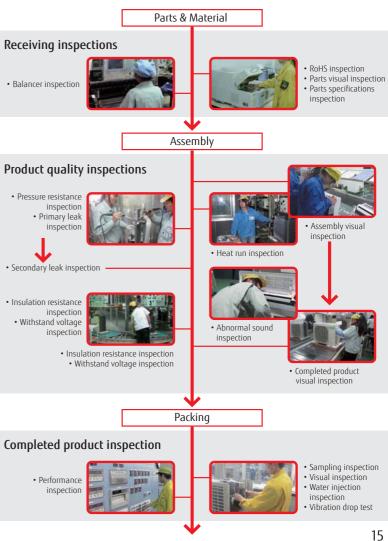
inspection

inspection.

offered to all over the world based on

Parts procurement requires a supplier's





# **SOLUTIONS**

Our solution for all properties

# Fujitsu General provides the best solutions suitable for properties.

# Solution Point

We provide Fujitsu General total solutions for the property unique needs.

# Target Property

## **LIGHT COMMERCIAL**

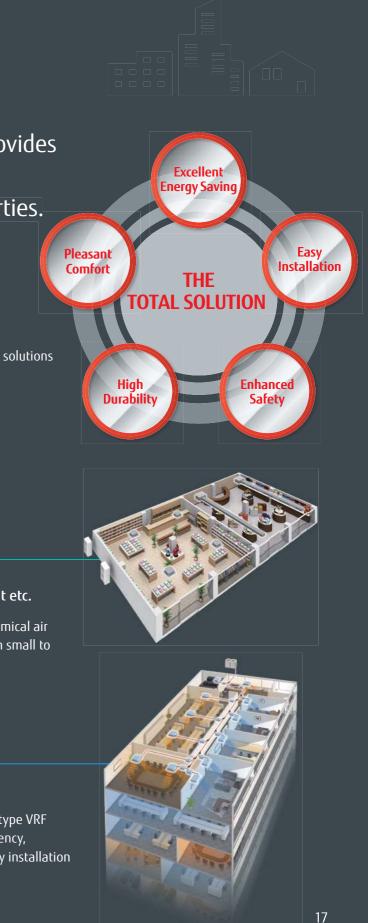
For Small offices, Hotels, School, Shops and Restaurant etc.

We offer comfortable and economical air conditioning systems focused on small to medium-sized buildings.



For Large Building

We provide single and modular type VRF systems designed for high efficiency, comfort, freedom of design, easy installation and high reliability.



## **AIRSTAGE™ SOLUTIONS**

# Small Offices

**AIRSTAGE** 

Fujitsu General provides perfect total air conditioning systems that take into account energy saving, low noise, comfortable airflow, small room application and centralized control for small-sized office buildings with many small rooms.



# New style 3D flow cassette provides more comfort

The left and right air outlet ports with max 100° rotation angle and the wide center air outlet port can minimize uneven temperature to create a comfortable space.



# Various indoor units lineup for low capacity class

Various range of low capacity 1.1 kW indoor units to suit small rooms or spaces.



Compact Floor

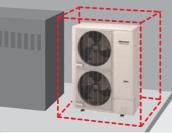


J-II J-IIL High capacity model

# AIRSTAGE<sup>™</sup> J-Series Up to 18 HP by compact outdoor unit

Small VRF system is suitable for the buildings with many small rooms. Max. 42\* indoor units can be connected. \*Only J-IIIL 18 HP model





J-IIIL

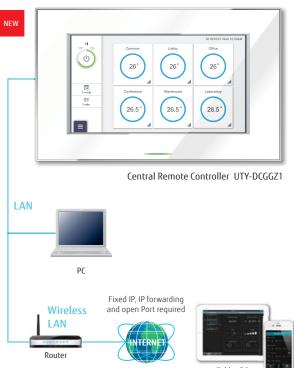
18 HP

# Compact and low noise design outdoor unit

This compact outdoor unit does not take up much space even if installed in a machine room or on the rooftop. This unit secures enough static pressure even if there are louvers. Low noise operation is possible at nighttime by a low noise mode.

# New centralized remote controller with improved operability

Temperature management of each room and one week operation control management/settings are supported easily. This controller makes energy saving management possible with upper/lower temperature limit settings and operation prohibited settings.



Tablet PC

Smartphone

## Control and monitoring

The same management as with the main unit is possible even if you are at your desk. Nonadministrators can also operate the air conditioners with a PC, Smartphone or tablet.



iOS, Android and/or Windows

Hotels For Light Commercial

Fujitsu General provides perfect total air conditioning systems that take into account comfort, energy saving, external appearance, safety and easy installation for small low-rise hotels.





## Guest room air conditioning with excellent comfort, energy saving and easy installation

Space saving

Mini duct type with 198 mm height and 450 mm depth. This can be installed in narrow ceiling space easily.



Mini Duct



Card key switch available Using the card key prevents you from forgetting to switch off the air conditioner

Comfortable airflow that switches up and down air directions The Auto Louver Grille Kit

achieves comfortable airflow by adjusting the air direction.



Use of an external connect switch

Auto Louver Grille Kit



J-IIIL High capacity model



J-IIIL

Due to the lowest and most compact design in the industry, the appearance of hotel is not damaged even when installed on the building.



# Ventilation of

# the whole hotel supported

Outdoor air processing is essential in hotel spaces with a high degree of airtightness. The DX-Kit can link up with air conditioners to ensure sufficient ventilation. This system can be expanded.



20

## Centralized control of air conditioning in shared spaces

Air conditioning in shared spaces such as lobbies and hallways is controlled centrally. Temperature and operating conditions can be managed without the adjustment by guests.



System controller



## **Simple Remote** Controller with sophisticated design

Suitable for hotels or offices as it is easily operated with no complex functions.

Large LCD screen & simple operation buttons White colored backlight on monitor enable easy operation in dark.



#### Large space air conditioning in the reception and lobby

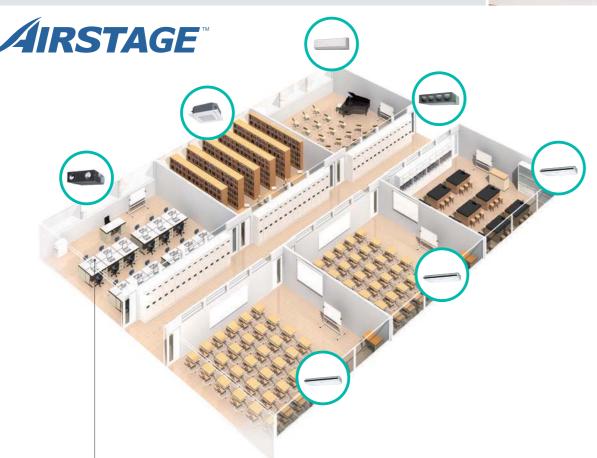
Ultra-large duct type single split system suitable for large spaces with high ceilings



School For Light Commercial

Fujitsu General provides the optimal number of connected indoor units for mid-sized educational institutions. The degree of freedom of the installation location selection is improved with a compact design that minimizes the installation area. Even one outdoor unit can cover the entire school building.





## Centralized control of both air conditioning and ventilation equipment

It is possible to perform centralized control to stop the operation of lighting and ventilation equipment in addition to air conditioners. This is useful in energy saving management over the whole building.



System Controller Lite



Medium Static Pressure Duct





wall mounted

# Various indoor units

We have a lineup of indoor units that can also support complex applications – from normal classrooms to special classrooms and auditoriums. Air conditioners can be also added easily.

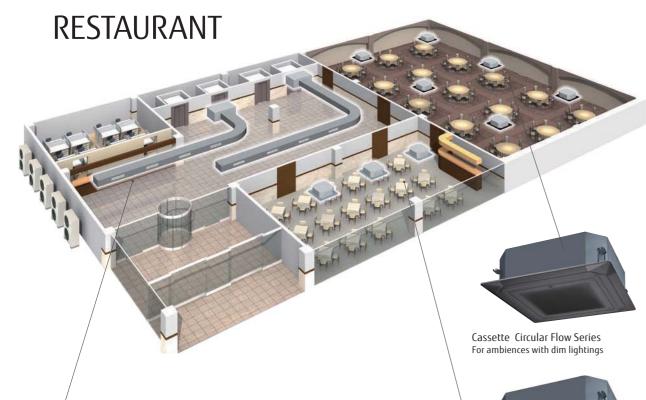




# Ш Restaurant, Shops For Light Commercial

Fujitsu General provides perfect total air conditioning systems that offer smooth support by tenant, by purpose and by customer visit frequency in shops and restaurants with multiple lighting and a high density of customers.

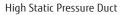






## Appropriate air conditioning in the atrium space

Appropriate air conditioning of the high ceiling and glass-sided atrium space with a large duct system







Cassette Circular Flow Series For bright Interior rooms etc.

# Color variations by two panels

Both black and white panels are available for Cassette type. Black panel is suitable for the dark place such as a restaurant with atmosphere. White panel is usually used at bright areas such as offices. (Available to single split and VRF indoor units)



## Low outside air temperature cooling air conditioning support

Low outside air temperature cooling operation is necessary in winter in stores with a lot of heat inside. Air conditioning system can be supported flexibility to allow cooling operation at -15°C



44 28 A8 A4 A4 44 22 A4 44 R 11 I 11 II 14 AL ANY AN BRINAN A 20 T T T

Medium Static Pressure Duct 30-150 Pa



Fujitsu General provides modular type VRF systems that seek high efficiency, comfort, design freedom, easy installation and reliability for skyscraper buildings.





## Abundant lineup suitable to match the operating environment

VRF series lineup to meet various needs such as energy saving-orientated models and models compatible with a high outdoor air temperature of 52°C\*



# AIRSTAGE VR-II

Smart and cutting-edge design. Extensive lineup from 8 HP to 48 HP in 2 HP increment. Connectable indoor unit capacity ratio up to 150%

#### 8 HP - 48 HP 34 Models

- Space saving combination: 8 HP to 48 HP/21 models
- Energy efficiency combination: 16 HP to 44 HP/13 models

#### Individual air conditioning system for large buildings

Capacities can be expanded up to simultaneous cooling and heating with maximum 48HP. Large individual air conditioning is supported.



#### 8 HP - 54 HP 39 Models

- Space saving combination: 8 HP to 54 HP/24 models
- Energy efficiency combination: 16 HP to 46 HP/ 15 models



# Centralized control

Not only indoor units in the building but also facilities such as ventilation can be controlled easily by anyone.



System Controller

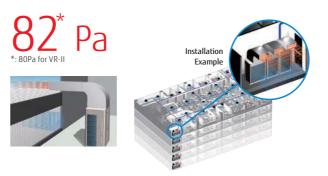
System Controller Lite (UTY-ALGXZ1 & UTY-PLGXX2)

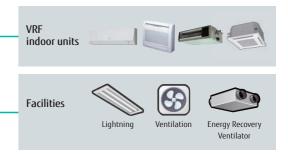
(UTY-APGXZ1)



# High system flexibility

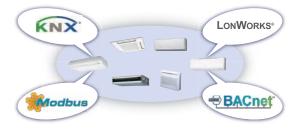
Flexible installation on each floor and installation of diverse indoor units are possible through the industry's top class high static pressure, long piping design and connection capacity.

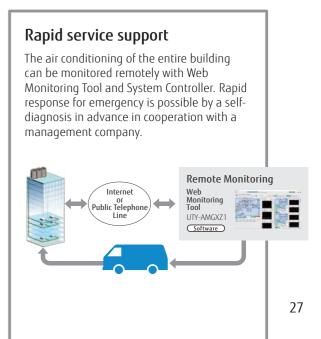




#### Link up with a variety of BMS

Centralized control including facilities and equipment in addition to air conditioning is possible by linking up with MODBUS, BACnet, KNX and other various interfaces.





# AIRSTAGE<sup>™</sup> **CORE TECHNOLOGY**

# AIRSTAGE<sup>™</sup> VRF Systems can be designed to create an air conditioning solution to suit most buildings requirements.

AIRSTAGE<sup>™</sup> VRF Systems can be designed to effectively provide an air conditioning solution from a large domestic residence through to a large scale commercial building.

**HIGH ENERGY EFFICIENCY MORE COMFORT** HIGH RELIABILITY **DESIGN FLEXIBILITY** EASY INSTALLATION **EASY SERVICE & MAINTENANCE** 

# **HIGH ENERGY EFFICIENCY**

# **Operation Performance is Efficiently Controlled.**

#### Room temperature set point limitation

The minimum and maximum temperature ranges can be limited, which provide further energy saving while maintaining the comfort of the occupants.

#### Auto-off timer

New wired remote controller is equipped with an OFF timer function that automatically stops operation when a fixed time has elapsed from the start of operation. This prevents waste of energy.

Furthermore a new wired remote controller can set up the interval of time in case operation stops.



# Energy saving management

A variety energy saving operations can be set and managed depending on the season, weather, and time period. Excellent energy saving operation is performed by using System Controller.



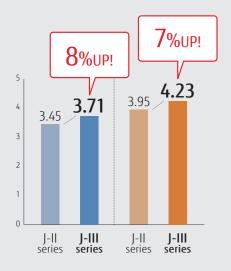
(Screen image is Energy manager software(Option))

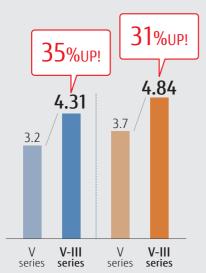
#### Capacity save operation

Operation capacity can be set in 5 steps for rated capability. The power consumption at peak is cut down and the maximum load is suppressed.

## **Highly Energy Efficiency**

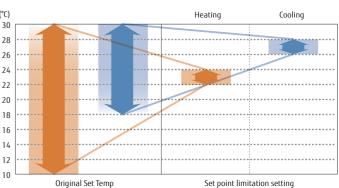
Significantly efficiency is improved by using DC twin rotary compressor, inverter technology, and large heat exchanger.

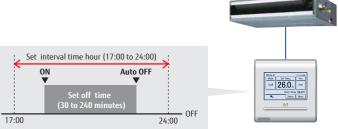


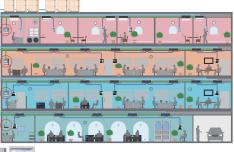




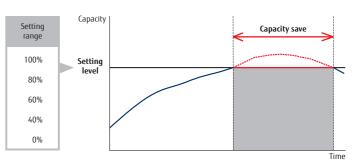










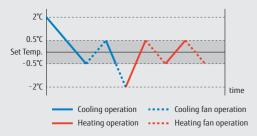


AIRSTAGE<sup>™</sup> CORE TECHNOLOGY

# **MORE COMFORT**

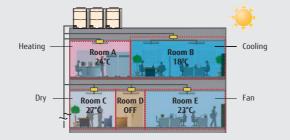
#### Auto changeover function

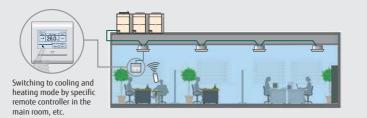
At Auto setting, the cooling/heating mode is automatically switched according to the set temperature and room temperature.



Auto changeover setting allows for the product to easily switch between cooling and heating modes regardless of the operation mode of other indoor units. This can be done via specific indoor unit with wired remote controller. This ensures comfortable operation all year round.

Automatic cooling / heating operation for each room is possible





#### Precision refrigerant flow control

Precise and smooth refrigerant flow control is achieved by using a DC Inverter control in conjunction with individual indoor unit electronic expansion valve control. This allows high precision comfortable temperature control of ±0.5°C.

#### Low sound level design

Small capacity indoor units respond for the demands of several applications.

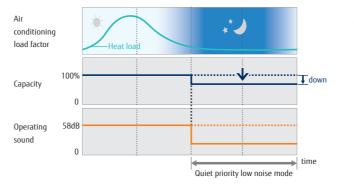
These models will be able to offer greater audibility comfort by operating at super low sound levels. Especially, Wall mounted (EEV external) type is 19dB(A) when low mode heating operation.

#### Quiet operation

#### Low noise mode

Two low noise modes can be selected automatically by quiet priority setting and capacity priority setting depending on the indoor environment and outside temperature load. This feature can be controlled via outdoor unit external input and/or system controller.

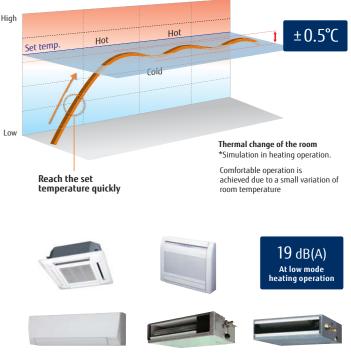
#### Quiet priority setting



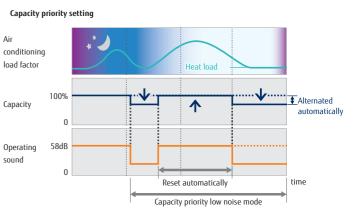
#### Non-stop oil recovery operation

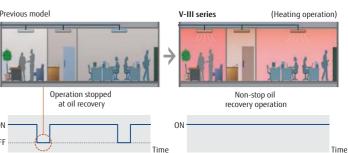
A comfortable room condition is maintained during oil recovery mode because the product continues to operate without stopping the cooling or heating operation.

\*: AIRSTAGE VR-II series is not available.



Small capacity indoor unit



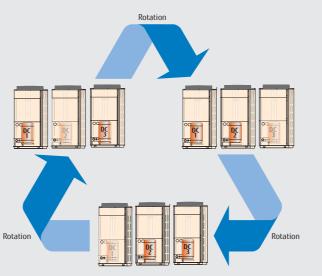






# Outdoor unit rotational operation

The compressor starting order is rotated so that the running time is shared.



Note: Rotational operation is alternated by the start / stop timing of the compressor.

#### **Backup operation**

If one compressor fails, backup operation will be performed by the remaining compressors\*.

\*: Note: Backup operation may not be possible depending on the trouble state.

#### Advanced refrigerant control

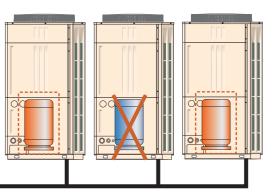
Innovative compressor control logic has been introduced in order to balance the refrigerant mass flow rate of each outdoor unit by controlling the inverter speed.

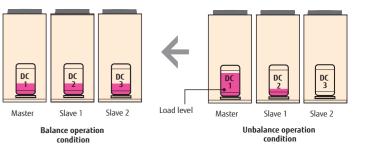
#### Liquid flow back protection

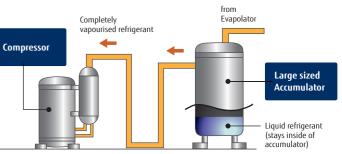
By adopting a large sized accumulator, the not completely vapourised refrigerant stays inside of the accumulator to ensure no liquid refrigerant is being fed into the compressor.

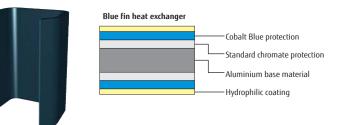
#### Adoption of blue fin heat exchanger

Corrosion resistant of the heat exchanger has been improved by the introduction of blue fin treatment to the outdoor unit's heat exchanger.









# **DESIGN FLEXIBILITY**



# High capacity connection



4HP-6HP

-

(°C)

-20

(°C)

60

Cooli 46°

-10°C

Heati

-10°C

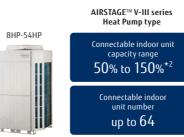
80 Pa (vr-II)

82 Pa (V-III, V-III tropical)

VR-II, V-III, V-III tropical







AIRSTAGE<sup>™</sup> J-IIS series

Heat Pump type

Connectable indoor unit

capacity range

50% to 130%\*1\*4

Connectable indoor

unit numbe up to 8\*5



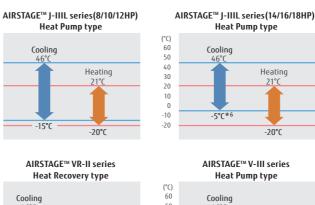
#### Wide operating range

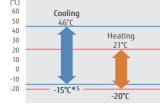
Installation in extreme temperature conditions is possible due to an increase in operational range.

Heating

21°0

-20°C

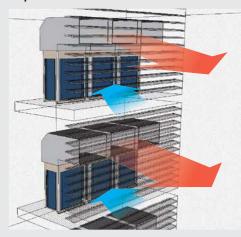


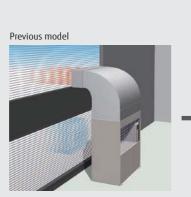


#### High static pressure

The outdoor unit can have a condenser hood easily connected with a static pressure of 80Pa to 82Pa. This allows outdoor units to be installed within plant rooms in high rise buildings.

Powerful discharge air prevents a short-circuit.





Large diameter fan and DC motor has been utilized allowing an external static pressure of 80Pa to 82Pa. This is approximately 2.6 times greater than the previous model.



Connectable indoor unit

capacity range

50% to 150%

AIRSTAGE<sup>™</sup> V-III tropical series

up to 64



4HP-6HP





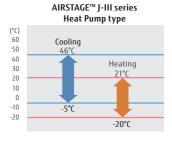
unit numbe up to  $13^{*4}$ 

- \*1. Conditions of maximum connectable indoor unit capacity ratio is as the chart below.
- \*2. Max. capacities in the combinations including the 18HP outdoor unit fall below 150%.

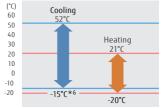
Series	Maximum connectable indoor unit capacity ratio									
Selles	Without 1.1kW models	With 1.1kW models*4								
VR-II	150%	130%								
V-III tropical	130%	-								
J-IIIL	150%	150%								
J-III	150%	150%								
J-IIS	130%	117%								

\*3. In the case of connectable indoor units, 1.1 kW models and Cassette and / or Duct type of 9.0 kW class or more, maximum connectable indoor unit capacity ratio is 110%.

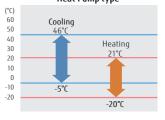
\*4. When AUXN009/012/014GLAH and ARXN009/012/014GLBH are connected, capacity range is 50% to 105% and only 2 to 4 indoor units are



AIRSTAGE<sup>™</sup> V-III tropical series Heat Pump type

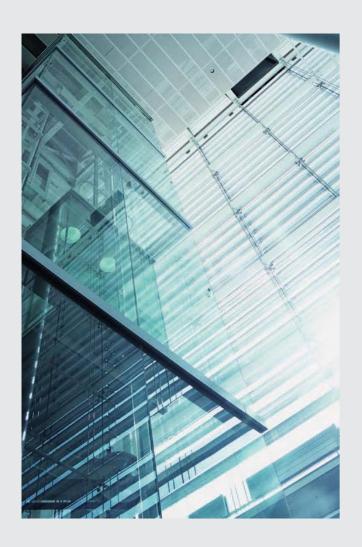


#### AIRSTAGE<sup>™</sup> J-IIS series Heat Pump type



- \*5. Note : When a multiple outdoor unit connection is used, operating range is from -5°C to 46°C in cooling.
- \*6. Note : Only when all indoor units are 5.6 kW or more in the system, the operation range is -15 to 46°C.

# **EASY INSTALLATION**



## **Easily transported**

Easily craned using lifting belt hooks Design of outdoor unit allows for lifting straps to be used



Transporting by forklift Transport with forklift is possible.



Can be transported in a small elevator



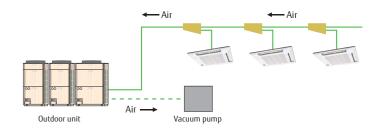
## Easy evacuation - using vacuum mode function

Installation of the wiring systems is made easier as the communication wiring can be installed continuously between

Simple wiring work

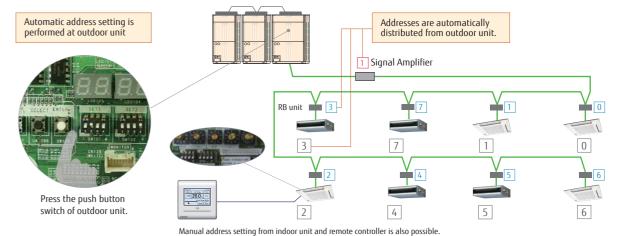
the indoor, outdoor and RB units.

The vacuum mode function enables all expansion valves of indoor units to be fully opened, making it easy to evacuate all the air inside pipe lines and indoor units.



## Automatic address setting

The address of the indoor unit, RB unit and signal amplifier can be set through the automatic function setting on the outdoor unit PCB.



## Easy commissioning by Service Tool

Service tools can be used to check the refrigerant temperature, pressure, and the operating status of the electronic expansion valve, making it easy to determine whether the units are connected properly.

#### Easy access

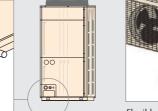
By adopting a L-Shape front panel that can be removed, the work space for installation and service has been significantly expanded by this new design. For multiple installations, work is performed easily and efficiently even in a narrow space.

#### Flexible piping connection

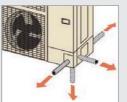
Piping and wiring are available to the front, left and right, and bottom.



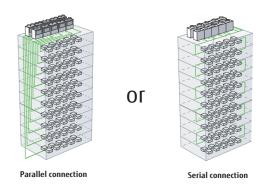




on of work space



Flexible installation by 4 way pipe direction (J-IIIL is 3 way pipe direction.)





# **EASY SERVICE & MAINTENANCE**



Error status can be checked easily via the indoor unit wired controller

#### Design for Easy Maintenance

7 segment LED is used to make it easy to check the details about the function setting status, refrigerant temperature, pressure, compressor operation time, and other factors for each model to make it easy to perform self-diagnostics.



Easy to read 7-segment LED : Confirm detailed operational and error status without using any specific equipment.



- Operation mode status
- Discharge temperature/Pressure status
- Compressor operation indication • Address/type/number of outdoor unit

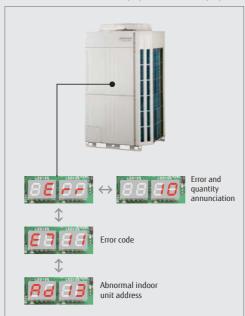
Error status can be cheked easily by outdoor unit display

Movable PCB panel

work behind the PCB

Easier for maintenance

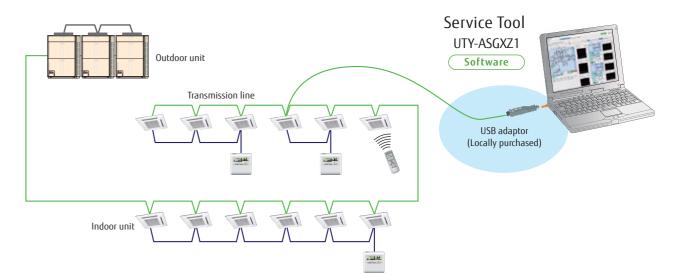
#### An error code is displayed on a liquid crystal screen. Wired Remote Controller Simple Remote Controller troller address Frror cod °28° 26.0 $\rightarrow$ 12 **00**2 E4+ Error code Unit numbe Wired Remote Controller (Touch panel) Error status / Error history Error History Status Lit Back Next Erase Page All Back



#### Error diagnosis by Service Tool

#### **Connection to Service Tool**

- Detail operation status and recent error history can be checked and analyzed by using the Service Tool.
- Last 5 min. operation memory can be also be recorded.



#### **Remote monitoring**

The Web Monitoring system allows you to view system operation anytime over the internet, ensuring issue free operation. The operating VRF network system in the building can be monitored real time over the Internet.

#### Monitoring Side

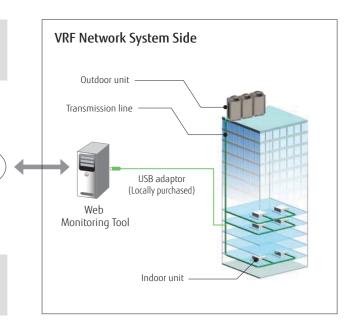




Public Telephone Line



#### 40



# AIRSTAGE<sup>™</sup> SERIES

IRSTAGE

# The AIRSTAGE<sup>™</sup> 6 Series has a total of 126 models to meet the environmental and building size requirements.

The AIRSTAGE<sup>™</sup> series outdoor units were developed with structural designs and advanced inverter technology to provide higher efficiency. High durability technology has also been incorporated to ensure long-term use.

AIRSTAGE<sup>™</sup> LINE-UP HEAT PUMP TYPE AIRSTAGE<sup>™</sup> J-IIIL Series HEAT PUMP TYPE AIRSTAGE<sup>™</sup> J-III Series HEAT PUMP TYPE AIRSTAGE<sup>™</sup> VR-II Series HEAT PUMP TYPE AIRSTAGE<sup>™</sup> V-III Series HEAT PUMP TYPE AIRSTAGE<sup>™</sup> V-III Series

# AIRSTAGE<sup>™</sup> LINE-UP

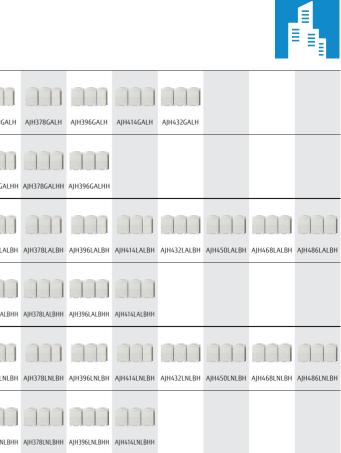
Fujitsu General provides multi air conditioning systems for buildings AIRSTAGE™ Series matched to the size and application of the property.

#### Outdoor units range

НР	4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
kW class	12.1	14.0	15.5	22.4	28.0	33.5	40.0	45.0	50.4	55.9	61.5	67.0	73.5	78.5	85.0	90.0	95.0	100.5	107.0	112.0	118.5	123.5	130.0	135.0	139.0	143.0	147.0
AIRSTAGE J-JILL Space Heat Pump				AJH072LELAH	AJH090LELAH	Ajh108LELAH	Ajh126LELAH	AjH144LELAH	NEW																		
AIRSTAGE J-III	AJH040LBLAH	Ajh045LBLAH	AJH054LBLAH																								
Heat Pump High Efficiency (3 phase)	Ajh040LELAH	Ajh045LELAH	AJH054LELAH																								
AIRSTAGE J-][S Space Heat Pump saving	AJH040LCLAH	AJH045LCLAH	AJH054LCLAH																								

Airstage VR-II	Space saving	AJHA72GALH	Ajha90galh	Ajh108GALH	AJH126GALH	AJH144GALH	Ajh162GALH	Ajh180GALH	Ajh198GALH	AjH216GALH	AjH234GALH	AjH252GALH	AJH270GALH	AJH288GALH	AJH306GALH	AJH324GALH	AjH342GALH	AJH360GALH
Heat Recovery	High Efficiency					Ajh144GALHH			Ajh198GALHH	AjH216GALHH	AjH234GALHH	Ajh252GALhh	AjH270GALHH		AJH306GALHH	AJH324GALHH	AJH342GALHH	AjH360GALHH
Airstage V-III	Space saving	Ajh072LALBH	AJHO9OLALBH	AJH108LALBH	AJH126LALBH	AjH144LALBH	AJH162LALBH	Ajh180LALBH	AJH198LALBH	AJH216LALBH	AjH234LALBH	AJH252LALBH	AJH270LALBH	AjH288LALBH	AjH306LALBH	AjH324LALBH	AJH342LALBH	AjH360LALBH
Heat Pump	High Efficiency					Ajh144LALBHH	Ajh162LALBHH	AJH180LALBHH		AjH216LALBHH	AJH234LALBHH	AJH252LALBHH	AjH270LALBHH	AjH288LALBHH	AjH306LALBHH	AJH324LALBHH	AJH342LALBHH	AJH360LALBHH
AIRSTAGE V-III TROPICAL Series	Space saving	Ajh072LNLBH	AJHO9OLNLBH	AJH108LNLBH	AJH126LNLBH	AjH144LNLBH	AJH162LNLBH	Ajh180LNLBH	AJH198LNLBH	AJH216LNLBH	AJH234LNLBH	AJH252LNLBH	AJH270LNLBH	AjH288LNLBH	AJH306LNLBH	AJH324LNLBH	AjH342LNLBH	AjH360LNLBH
Heat Pump Production by order	High Efficiency					Ajh144LNLBHH	Ajh162LNLBHH	Ajh180LNLBHH		AjH216LNLBHH	AjH234LNLBHH	AjH252LNLBHH	Ajh270LNLBHH	Ajh288LNLBHH	AJH306LNLBHH	AjH324LNLBHH	AjH342LNLBHH	AjH360LNLBHH





# HEAT PUMP TYPE AIRSTAGE J- III L series

Fujitsu General provides air conditioning systems for a wide range of applications from small office buildings and stores to large houses.

# System Outline

#### **Compact Outdoor unit**

The compact and low sound level enable the units to be installed to various environment with restriction and/or limited spaces such as mechanical rooms and or rooftops.

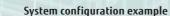
#### Small room application

Up to 40 indoor units can be connected by the optimum heat exchanger structure. Available to various small rooms.

#### Quiet design

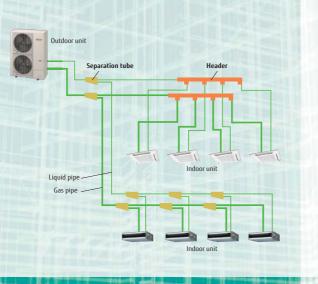
Small Office

Top class low sound operation has been achieved. This allows installation of the units to various places without a special sound prevention work.



• This system is used for small and medium-sized buildings. 1 refrigerant system is used for each outdoor unit.

• Connection of multiple indoor units using separation tubes and headers

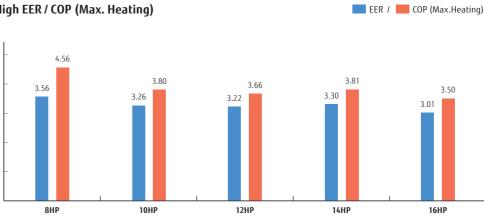


#### **Features**

#### Efficiency in actual operation

Top class high EER/COP(Max. Heating) is achieved for all models by large heat exchanger, high efficient DC twin compressor, and our own technologies.

#### High EER / COP (Max. Heating)



#### Advanced high efficiency technology



## Large propeller fan

The high efficiency and the low sound operation are mutually realized by reduction of a draft loss which are enabled by the Fujitsu General's original blade design and a large diameter propeller fan.



DC fan motor Miniaturized, low noise, high efficiency, multi-stage DC fan motor is mounted.









#### DC inverter control Efficiency is improved by mounting of new active filter module.



#### Subcool heat exchanger

Cooling performance is improved by mounting of dual tube heat exchanger.



#### Scroll compressor

The equipment of scroll compressor with a wide range of rotational frequency from 15 to 120 rps together with Fujitsu General's unique sensorless sine wave control method which smoothly control the input power run into the motor realized a mutual improvement on the energy efficient operation and the low sound operation.

15-120 rps

47



# **Various Installation**





AIRSTAGE™ V-Series outdoor u

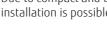
In house installation





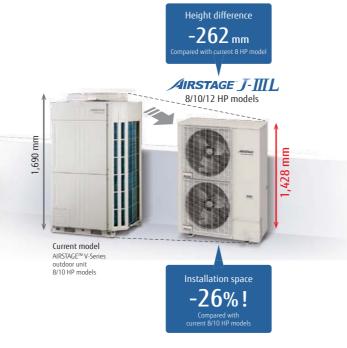
AIRSTAGE<sup>™</sup> V-Series outdoor unit

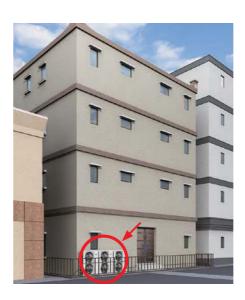
Narrow space behind building Space saving













AIRSTAGE<sup>™</sup> V-Series outdoor unit

#### Installation at back street of building **Flexible installation**

This model is front blow type and slim & low body, so installation space is compact. Building windows are not blocked and space saving multiple units installation is possible.





AIRSTAGE<sup>™</sup> J-Series outdoor unit

#### Low noise in consideration for the nearby residents

This model is front blow type and about 1000 mm wide, so flexible installation is possible even at narrow in house space.







AIRSTAGE<sup>™</sup> J-Series outdoor unit

Due to compact and thin model, direct ground installation or wall mounted installation is possible even at narrow off-street.



AIRSTAGE<sup>™</sup> J-Series outdoor unit

#### Long piping capability

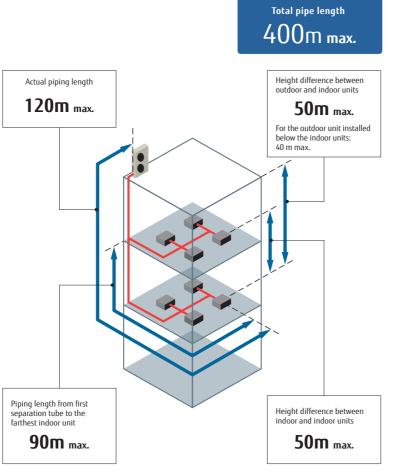
Our advanced refrigerant control technology allows us to achieve a total refrigerant piping length of 400 m. This opens up new possibilities in system design.

#### Up to 42 units\* can be connected

The combination of the smallest but adequate capacity indoor unit and a new outdoor unit with the optimum heat exchanger structure has realized the industry's top class connection of 42 units.







#### Specifications

Rating Capac	ity range	HP	8	10	12	14	16	18
Model name			AJH072LELAH	AJH090LELAH	AJH108LELAH	AJH126LELAH	AJH144LELAH	AJH162LELAH
Maximum Co	nnectable Indoor Unit		1-20	1-25	1-30	1-36	1-40	1-42
Power source	1				3-phase, ~	400V, 50Hz		
	Cooling		22.4	28.0	33.5	40.0	45.0	50.0
Capacity	Nominal Heating	kW	22.4	28.0	33.5	40.0	45.0	50.0
	Max Heating	1	25.0	31.5	37.5	45.0	50.0	55.0
	Cooling		6.30	8.59	10.42	12.12	14.96	18.52
Input power	Nominal Heating	kW	4.65	6.61	8.18	9.71	11.81	13.66
	Max Heating	1	5.45	8.29	10.25	11.80	14.29	16.66
EER	Cooling		3.56	3.26	3.22	3.30	3.01	2.70
СОР	Nominal Heating	W/W	4.82	4.24	4.10	4.12	3.81	3.66
LUP	Max Heating	]	4.56	3.80	3.66	3.81	3.50	3.30
Air flow rate		m3/h	8,400	9,000	11,000	13,000	14,000	14,800/15,300
Sound pressure	level / Cooling	dB (A)	52/66	54/69	59/73	62/75	64/77	65/79
Power level	Heating		54/—	57/—	61/-	63/—	65/—	68/—
	Height		1,428	1,428	1,428	1,638	1,638	1,638
Dimensions	Width	mm	1,080	1,080	1,080	1,080	1,080	1,080
	Depth		480	480	480	480	480	480
Weight		kg	170	177	178	213	213	217
Refrigerant	Type (Global Warming F	otential)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)
kenngerant	Charge	kg(CO2eq-T)	7.0 (14.6)	7.5 (15.7)	7.5 (15.7)	11.0 (22.9)	11.0 (22.9)	11.8 (24.6)
Connection p	ipe Liquid	mm	9.52	9.52	12.70	12.70	12.70	12.70
diameter	Gas		19.05	22.20	28.58	28.58	28.58	28.58
lotal pipe ler	ngth	- m -	400	400	400	400	400	400
Max. Height	difference				50/40 (Outdoor u	nit: Upper/Lower)		
Operation ra	Cooling	°C	-15 to 46	-15 to 46	-15 to 46	-5 to 46*	-5 to 46*	-5 to 46*
operationIId	Heating		-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m. \* The cooling operation range of -15 to 46°C is allowed only when all of the indoor units connected to the system are higher than capacity of 5.6kW.

#### High Static Pressure

External static pressure is available up to 60Pa for 14/16/18HP. (20Pa for 8HP, 30Pa for 10/12HP)



#### **Top Class Low Operating Sound**

Top class low operating sound is realized. Highly suited to densely populated areas thanks to their low operating sound.

#### Sound Power level



AIRSTAGE J- III L

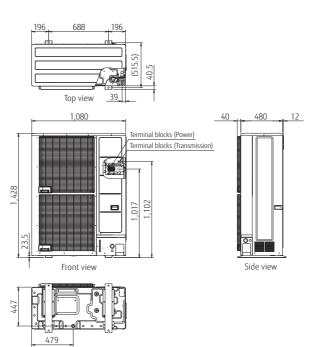


Current model (8HP)

#### Dimensions

#### Models: AJH072LELAH / AJH090LELAH / AJH108LELAH

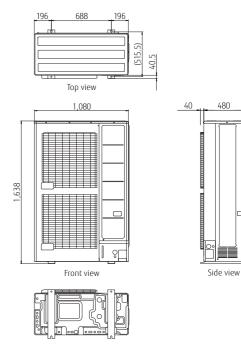
Bottom view



#### Models: AJH126LELAH / AJH144LELAH / AJH162LELAH

(Unit : mm)

AIRSTAGE J- IIIL



Bottom view

# HEAT PUMP TYPE AIRSTAGE J- III series

Fujitsu General provides air conditioning systems for a wide range of applications from small office buildings and stores to large houses.

# System Outline

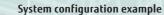
## **High Energy Efficiency**

Heat pump inverter control is used to achieve an efficient cooling and heating operation in any indoor unit combination.

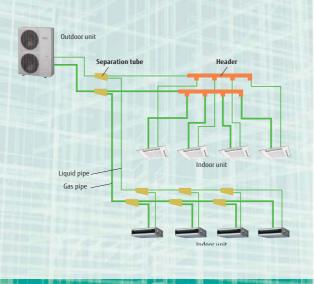
# Flexible systems for small- and medium-size buildings air conditioning

Space saving design and long piping design allows flexible installations on the roofs or balconies of small-and medium-size buildings. Multiple indoor units of various capacities and types can be connected.

Small Office



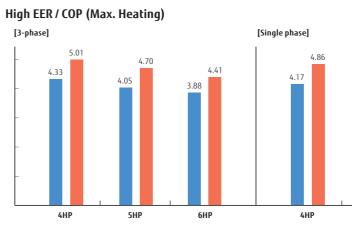
- This system is used for small and medium-sized buildings. 1 refrigerant system is used for each outdoor unit.
- Connection of multiple indoor units using separation tubes and headers



#### Features

## Efficiency in actual operation

Top class high COP (Max. Heating) is achieved for all models by large heat exchanger, high efficient DC twin compressor, and our own technologies.



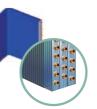
## Advanced high efficiency technology



Large propeller fan High performance and low noise realized by large propeller and optimization of angle.



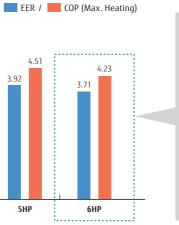
DC fan motor Miniaturized, low noise, high efficiency, multi-stage DC fan motor is mounted.



Large heat exchanger Heat exchange performance is substantially improved by mounting of 3-row large heat exchanger.

High efficiency compressor motor	Efficien	<b>vin rotary comp</b> icy in all load regions nance from low to me
Optimized refrigerant flow design	High (	
Highly accurate parts	Compressor efficiency	DC Twin Rotar
		Compress







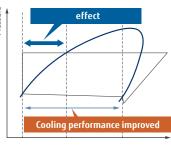




DC inverter control Efficiency is improved by mounting of new active filter module.



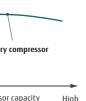
#### Subcool heat exchanger Cooling performance is improved by mounting of dual tube heat exchanger.



Enthalpy

#### pressor

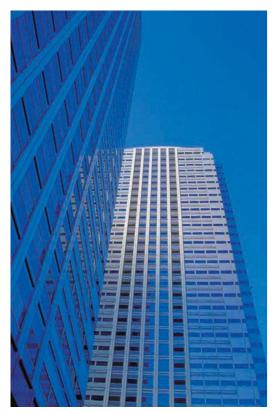
s is good. Especially good edium at normal operation.

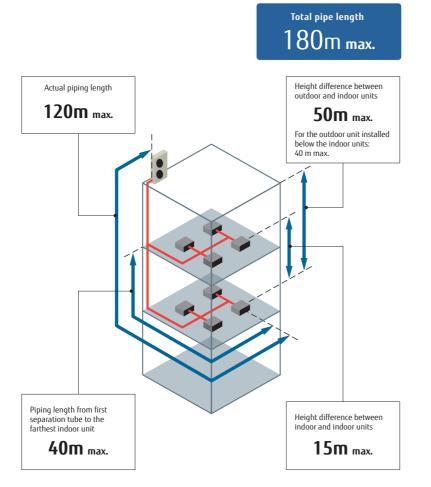


High

## Long piping capability

Our advanced refrigerant control technology allows us to achieve a total refrigerant piping length of 180m. This opens up new possibilities in system design.



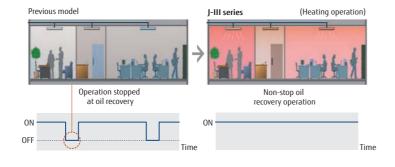


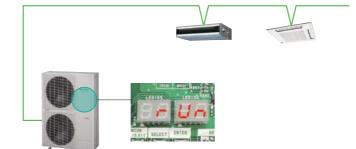
## Non-stop oil recovery operation

A comfortable room condition is maintained during oil recovery mode because the product continues to operate without stopping the cooling or heating operation.

#### **Easier Installation**

Connection check function : Possible to confirm whether wiring connection and address setting are correct by a quick check run function.





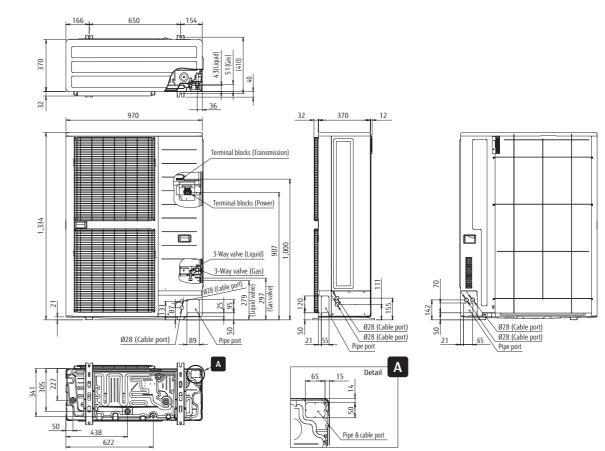
• Display connected indoor unit numbers • Duplicately set address number of indoor unit can be displayed Specifications

Rating Capaci	ty range	HP	4	5	6	4	5	6	
Model name		-	AJH040LBLAH	AJH045LBLAH	AJH054LBLAH	AJH040LELAH	AJH045LELAH	AJH054LELAH	
Maximum Cor	nnectable Indoor Unit		1-9	1-10	1-13	1-9	1-10	1-13	
Power source				Single-phase, ~230V, 50H	Z		3-phase, ~400V, 50Hz		
	Cooling		12.1	14.0	15.5	12.1	14.0	15.5	
Capacity	Nominal Heatin	a kW	12.1	14.0	15.5	12.1	14.0	15.5	
. ,	Max Heating	-	13.6	16.0	18.0	13.6	16.0	18.0	
	Cooling		2.90	3.57	4.18	2.79	3.46	3.99	
Input power	Nominal Heatin	g kW	2.30	2.83	3.28	2.23	2.71	3.14	
	Max Heating		2.80	3.55	4.26	2.71	3.40	4.08	
EER	Cooling		4.17	3.92	3.71	4.33	4.05	3.88	
СОР	Nominal Heatin		5.27	4.96	4.74	5.44	5.17	4.94	
LOP	Max Heating	7	4.86	4.51	4.23	5.01 4.70		4.41	
Air flow rate		m3/h	6,200	6,400	6,900	6,200	6,400	6,900	
Sound pressure	level / Cooling	dB (A)	50 / 66	51 / 67	53 / 69	50 / 66	51 / 67	53 / 69	
Power level	Heating	UD (A)	52 / 68	53 / 69	55 / 71	52 / 68	53 / 69	55 / 71	
Heat exchang	er fin		Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	
	Height		1,334	1,334	1,334	1,334	1,334	1,334	
Dimensions	Width	mm	970	970	970	970	970	970	
	Depth		370	370	370	370	370	370	
Weight		kg	117	117	119	119	119	119	
Refrigerant -	Type (Global Warming	Potential)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088	
Kenngerante	Charge	kg(CO2eq-T)	4.8 (10.0)	5.3 (11.1)	5.3 (11.1)	4.8 (10.0)	5.3 (11.1)	5.3 (11.1)	
Connection pi	pe Liquid	mm	9.52	9.52	9.52	9.52	9.52	9.52	
diameter	Gas		15.88	15.88	19.05	15.88	15.88	19.05	
Total pipe len	5	m	180	180	180	180	180	180	
Max. Height d			50/4	0 (Outdoor unit: Upper/L	,		0 (Outdoor unit: Upper/Lo		
Operation ran	Cooling	- °c	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	
	Heating	ر د	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	

Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. The protective function may work when using it outside the operation range.

#### Dimensions

Models: AJH040LBLAH / AJH045LBLAH / AJH054LBLAH / AJH040LELAH / AJH045LELAH / AJH054LELAH



(Unit : mm)

*A*IRSTAGE<sup>™</sup>*J*-Ⅲ



Fujitsu General provides air conditioning systems for a wide range of applications from small office buildings and stores to large houses.

# System Outline

Space saving and low sound level design Economical individual air conditioning is realized by ALL-DC technology, large capacity DC twin rotary compressor, and 3-row heat exchanger though the size is compact.

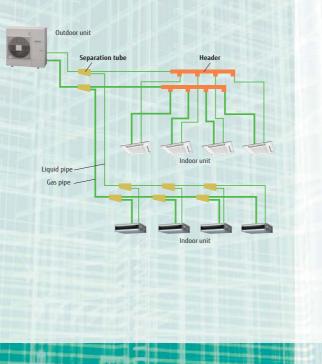
# Flexible systems for homes, shops, small-size buildingss air conditioning

Due to compact size design and flexible piping design, J-IIS series can be installed easily at the place where the installation space is limited such as homes, shops, and small offices. Multiple indoor units of various capacities and types can be connected.

Large Homes



System configuration example



Features

#### It Can be Easily Carried and Installed Obscure Place



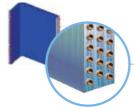
## Advanced high efficiency technology



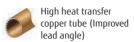
Large propeller fan High performance and low noise realized by large propeller and optimization of angle.



DC fan motor Miniaturized, low noise, high efficiency, multi-stage DC fan motor is mounted.



Large heat exchanger Heat exchange performance is substantially improved by mounting of 3-row large heat exchanger.

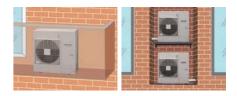






## Small and light weight outdoor unit

This model is much more compact than conventional 6HP comparable outdoor units. Even when installed on the balcony it fits within the height of the fence. The compact size with a height of less than 1 m allows it to be installed under windows and in tight spaces



#### Low sound level design

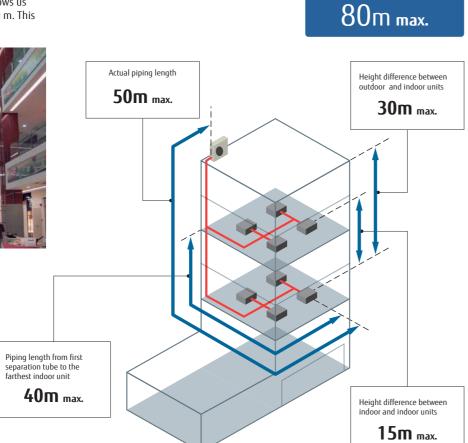
Significantly low sound level is improved by using DC twin rotary compressor, inverter technology, and advanced airflow structure design.



#### Long Piping Length

Our advanced refrigerant control technology allows us to achieve a total refrigerant piping length of 80 m. This opens up new possibilities in system design.

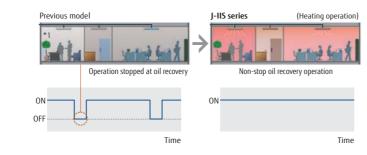




Total pipe length

#### Non-stop oil recovery operation

A comfortable room condition is maintained during oil recovery mode because the product continues to operate without stopping the cooling or heating operation.



#### **Easier Installation**

Connection check function : Possible to confirm whether wiring connection and address setting are correct by a quick check run function.



• Display connected indoor unit numbers

• Duplicately set address number of indoor unit can be displayed

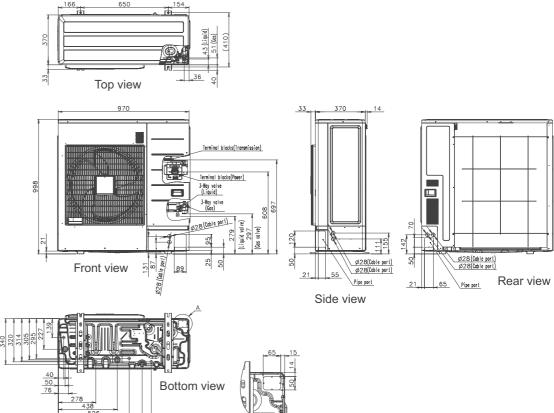
#### Specifications

Rating Capac	ity range	HP	4	5	6		
Model name			AJH040LCLAH	AJH045LCLAH	AJH054LCLAH		
Maximum Co	nnectable Indoor Unit		7	8	8		
Power source				Single-phase, ~230V, 50Hz			
	Cooling		12.1	14.0	15.1		
Capacity	Nominal Heating	kW	12.1	14.0	15.1		
	Max Heating		13.6	16.0	16.5		
	Cooling		3.44	4.43	5.03		
Input power			2.51	3.11	3.52		
	Max Heating		3.09	3.93	4.11		
EER	Cooling		3.52	3.16	3.00		
СОР	Nominal Heating		4.83	4.51	4.30		
CUP	Max Heating		4.40	4.07	4.01		
Air flow rate		m <sup>3</sup> /h	4,040	4,200	4,200		
Sound pressure	level / Cooling	dB (A)	51 / 67	53 / 69	54 / 70		
Power level	Heating	UD (A)	54 / 68	55 / 69	56 / 70		
Heat exchance	jer fin		Blue fin	Blue fin	Blue fin		
	Height		998	998	998		
Dimensions	Width	mm	970	970	970		
	Depth		370	370	370		
Weight		kg	86	86	87		
Refrigerant	Type (Global Warming P	otential)	R410A (2,088)	R410A (2,088)	R410A (2,088)		
Kenngeranic	Charge	kg(CO2eq-T)	4.0 (8.4)	4.0 (8.4)	4.0 (8.4)		
Connection p	ipe Liquid	mm	9.52	9.52	9.52		
diameter	Gas		15.88	15.88	15.88		
Total pipe ler		m	80	80	80		
Max. Height	difference		30	30	30		
Operation rar	Cooling	°C	-5 to 46	-5 to 46	-5 to 46		
operacionital	Heating		-20 to 21	-20 to 21	-20 to 21		

Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. The protective function may work when using it outside the operation range.

#### Dimensions

#### Models: AJH040LCLAH / AJH045LCLAH / AJH054LCLAH



Detail A



(Unit : mm)

# **HEAT RECOVERY TYPE** AIRSTAGE VR-II series

Smart and cutting edge design Extensive lineup from 8HP to 48HP in 2HP increment Connectable indoor unit capacity ratio up to 150%

# System Outline

# Simultaneous cooling and heating operation using 1 refrigerant system

Cooling and heating can be freely selected for each indoor unit to provide simultaneous cooling and heating in rooms with large temperature differences.

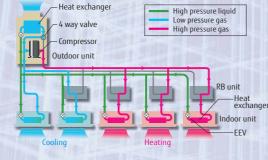
#### Annual cooling operation

Use annual cooling operation for the rooms and other spaces that require constant temperature control throughout the year.

#### Handles changes in the temperature difference

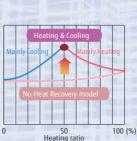
The operation mode can be freely changed when there are large temperature differences during the day, such as between seasons.

# Large Building



Our Heat recovery systems achieve high operating energy efficiency by drawing heat from the room to be cooled and transferring it as energy for rooms that are to be heated.

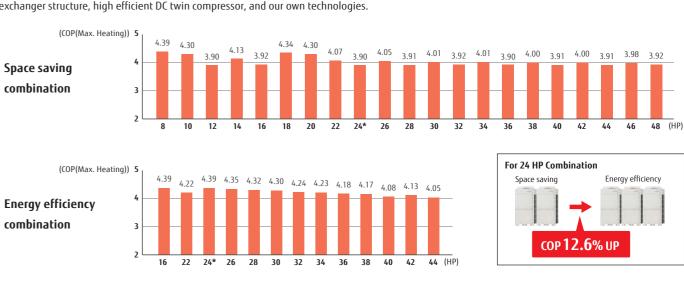
Our Heat recovery systems achieve high operating energy efficiency by drawing heat from the room to be cooled and transferring it as energy for rooms that are to be heated.



#### Features

#### Efficiency in actual operation

Top class high COP(Max. Heating) is achieved for all combinations by our unique heat exchanger structure, high efficient DC twin compressor, and our own technologies.



#### Energy saving technology that boosted operation efficiency



#### Powerful large propeller fan By using CFD\*1 technology, a newly designed fan

achieves high performance and low noise operation. \*1. CFD = Computational Fluid Dynamics



#### 3 phase DC fan motor

Efficiency is substantially improved by high efficient motor with sophisticated driver control. In addition, low noise is realized by DC fan motor.



#### Subcool heat exchanger

High Heat Exchange efficiency is achieved by using an internal projection shape double pipe construction.



Sine-wave DC inverter control High efficiency is realized by adoption of reduced switching loss IPM.



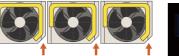
High efficient compressor Large capacity DC inverter compressor Large capacity high efficient DC twin rotary



compressor with excellent intermediate capability.

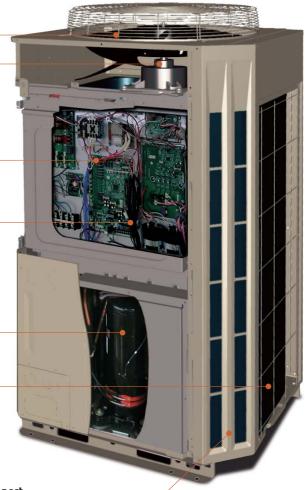
#### 4-face heat exchanger

Heat exchange efficiency is significantly improved by the introduction of a new 4-face heat exchanger that increases effective surface area.





Front intake port



#### (corner cut air inhaling structure)

In multiple outdoor unit installations, the unique front intake design improves airflow into the Heat Exchanger.



#### All inverter compressor

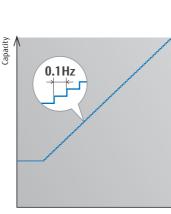
Large capacity DC inverter compressor

Large capacity high efficient DC twin rotary compressor with excellent intermediate capability.



#### High efficient compressor speed control

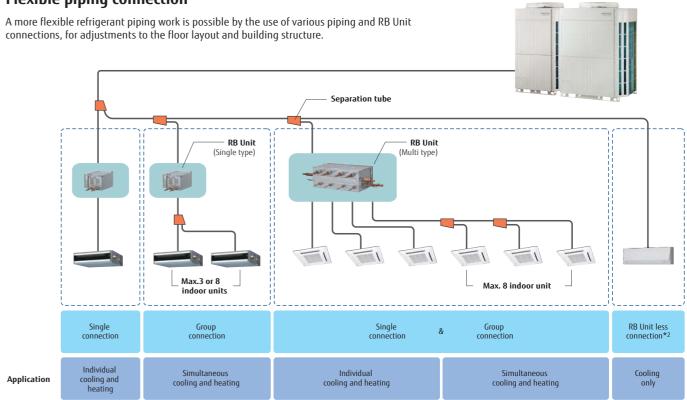
Comfortable space with small room temperature changes and little energy loss is created by 0.1Hz steps compressor speed control.



Inverter frequency

# Flexible piping connection

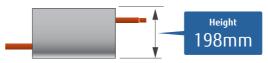
connections, for adjustments to the floor layout and building structure.



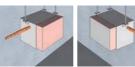
• The RB unit can be freely positioned between the first branch and the indoor unit • The maximum height difference between RB units is 15 m.

\*2. RB Unit is not necessary for cooling only use.

#### Flexible installation of RB unit



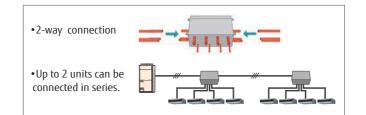
- Small & slim design saves space
- A drain pipe is not required
- The control box position can be changed to meet the installation conditions





Installation possible from either side for freedom of the control box

- Installation possible on the upper-side for use in narrow space
- Small design saves space • A drain pipe is not required
- Simple installation series connection design

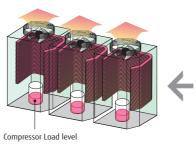


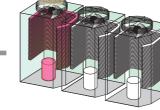
#### Multiple outdoor operation control

When multiple outdoor units are connected a sophisticated operation is performed by each compressor. Rather than running one compressor at full load and distributing refrigerant to one heat exchanger, this control method operates all compressors at part load and distributes refrigerant to all of the heat exchangers which allows for the overall system efficiency to be improved.

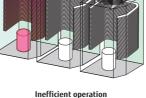
#### Heat exchanger refrigerant control

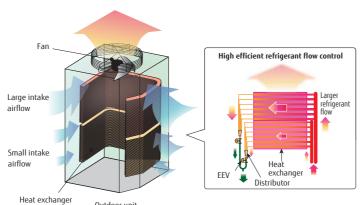
The heat exchanger in the outdoor unit is split into two parts (Top and Bottom). The efficiency of the heat exchanger has been improved by adopting an optimum refrigerant path control where the refrigerant is distributed more into the top heat exchanger as this is where there is a greater air flow intake.





High efficient operation





Outdoor unit

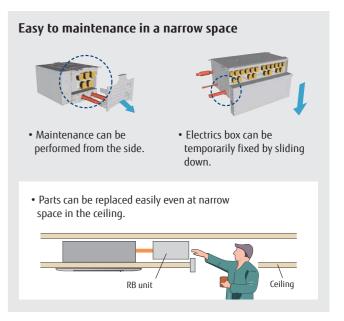




RB unit (single type)



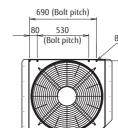
RB unit (multi type)

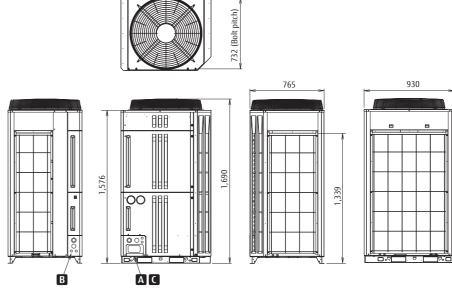


Space saving combinations 40.0kW (14HP) 22.4kW (8HP) 28.0kW (10HP) 33.5kW (12HP) 45.0kW (16HP) AJHA72GALH AJHA90GALH AJH108GALH AJH126GALH AJH144GALH UNIT : AJHA72GALH UNIT : AJHA90GALH UNIT : AJH108GALH UNIT : AJH126GALH UNIT : AJH144GALH 50.4kW (18HP) 56.0kW (20HP) 61.5kW (22HP) 67.0kW (24HP) 73.0kW (26HP) AJH162GALH AJH180GALH AJH198GALH AJH216GALH AJH234GALH UNIT : AJHA90/A90GALH UNIT: AJH108/A90GALH UNIT : AJHA90/A72GALH UNIT : AJH108/108GALH UNIT : AJH144/90GALH 78.5kW (28HP) 85.0kW (30HP) 90.0kW (32HP) 95.0kW (34HP) 100.5kW (36HP) AJH252GALH AJH270GALH AJH288GALH AJH306GALH AJH324GALH UNIT : AJH144/108GALH UNIT: AJH144/126GALH UNIT : AJH144/144GALH UNIT : AJH108/108/A90GALH UNIT : AJH108/108/108GALH 106.5kW (38HP) 112.0kW (40HP) 118.0kW (42HP) 123.5kW (44HP) 130.0kW (46HP) AJH342GALH AJH360GALH AJH378GALH AJH396GALH AJH414GALH UNIT : AJH144/108/A90GALH UNIT · AIH144/108/108GALH UNIT · AIH144/144/A90GALH UNIT · AIH144/144/108GALH UNIT · AIH144/144/126GALH 135.0kW (48HP) AJH432GALH UNIT : AJH144/144/144GALH

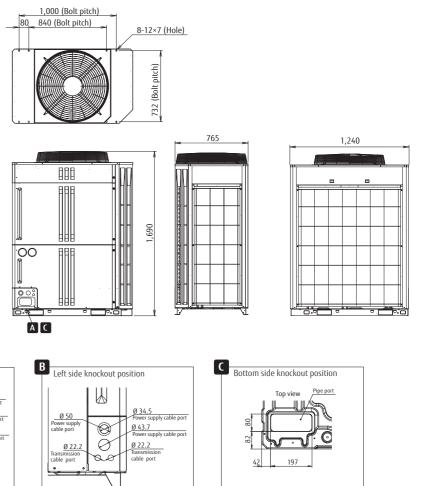
#### Dimensions

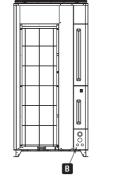
8,10,12HP : AJHA72GALH / AJHA90GALH / AJH108GALH

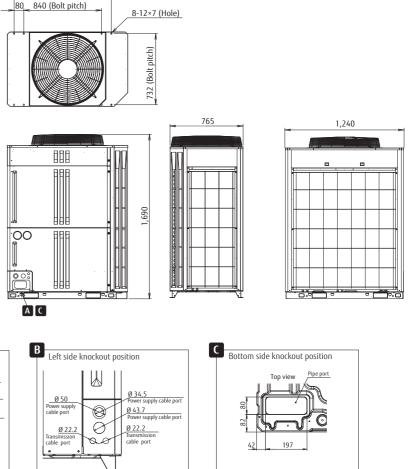


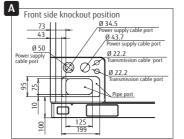


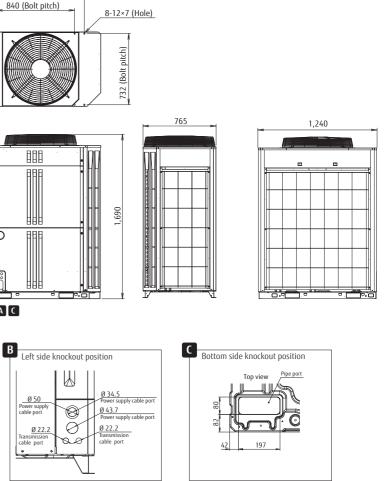
14,16HP: AJH126GALH / AJH144GALH











## **Energy efficiency combinations**





AIRSTAGE VR-II

(Unit : mm)

#### 8-12 × 17 (Hole)

(Unit : mm)

#### Space Saving Combinations

Rating Capacity range		HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
Model name			AJHA72GALH	AJHA90GALH	AJH108GALH	AJH126GALH	AJH144GALH	AJH162GALH	AJH180GALH	AJH198GALH	AJH216GALH	AJH234GALH	AJH252GALH	AJH270GALH	AJH288GALH	AJH306GALH	AJH324GALH	AJH342GALH	AJH360GALH	AJH378GALH	AJH396GALH	AJH414GALH	AJH432GALH
Unit 1			AJHA72GALH	AJHA90GALH	AJH108GALH	AJH126GALH	AJH144GALH	AJHA90GALH	AJHA90GALH	AJH108GALH	AJH108GALH	AJH144GALH	AJH144GALH	AJH144GALH	AJH144GALH	AJH108GALH	AJH108GALH	AJH144GALH	AJH144GALH	AJH144GALH	AJH144GALH	AJH144GALH	AJH144GALH
Unit 2								AJHA72GALH	AJHA90GALH	AJHA90GALH	AJH108GALH	AJHA90GALH	AJH108GALH	AJH126GALH	AJH144GALH	AJH108GALH	AJH108GALH	AJH108GALH	AJH108GALH	AJH144GALH	AJH144GALH	AJH144GALH	AJH144GALH
Unit 3																AJHA90GALH	AJH108GALH	AJHA90GALH	AJH108GALH	AJHA90GALH	AJH108GALH	AJH126GALH	AJH144GALH
Maximum Connectable Indoo			15	16	17	21	24	32	30	32	35	39	42	45	48	50	53	57	60	63	64	64	64
Indoor unit connectable capacit	y Cooling	kW	11.2-33.6	14.0-42.0	16.8-50.2	20.0-60.0	22.5-67.5	25.2-75.6	28.0-84.0	30.8-92.2	33.5-100.5	36.5-109.5	39.3-117.7	42.5-127.5	45.0-135.0	47.5-142.5	50.3-150.7	53.3-159.7	56.0-168.0	59.0-177.0	61.8-185.2	65.0-195.0	67.5-202.5
Power source						3-р	hase 4 wire, 400 V, 5	50Hz									3-phase 4 wir	e, 400 V, 50Hz					
	Cooling		22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5	67.0	73.0	78.5	85.0	90.0	95.0	100.5	106.5	112.0	118.0	123.5	130.0	135.0
Capacity	Nominal Heating	kW	22.4	28.0	33.5	40.0	45.0	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-	-
	Max Heating		25.0	31.5	37.5	45.0	50.0	56.5	63.0	69.0	75.0	81.5	87.5	95.0	100.0	106.5	112.5	119.0	125.0	131.5	137.5	145.0	150.0
	Cooling		5.45	7.11	9.75	11.34	13.61	12.56	14.22	16.86	19.50	20.72	23.36	24.95	27.22	26.61	29.25	30.47	33.11	34.33	36.97	38.56	40.83
Input power	Nominal Heating	kW	4.73	6.00	7.89	8.85	10.54	-	-	-	-	-	_	-	-	-	_	_	_	-	_	_	-
	Max Heating		5.70	7.33	9.62	10.90	12.77	13.03	14.66	16.95	19.24	20.10	22.39	23.67	25.54	26.57	28.86	29.72	32.01	32.87	35.16	36.44	38.31
EER	Cooling		4.11	3.94	3.44	3.53	3.31	4.01	3.94	3.65	3.44	3.52	3.36	3.41	3.31	3.57	3.44	3.50	3.38	3.44	3.34	3.37	3.31
	Nominal Heating	W/W	4.74	4.67	4.25	4.52	4.27	-	-	-	-	_	_	-	-	-	_	_	_	-	_	_	-
LOP	Max Heating		4.39	4.30	3.90	4.13	3.92	4.34	4.30	4.07	3.90	4.05	3.91	4.01	3.92	4.01	3.90	4.00	3.91	4.00	3.91	3.98	3.92
Air flow rate	High	m³/h	11,100	11,100	11,100	13,000	13,000	11,100×2	11,100×2	11,100×2	11,100×2	13,000+11,100	13,000+11,100	13,000×2	13,000×2	11,100×3	11,100×3	13,000+11,100×2	13,000+11,100×2	13,000×2+11,100	13,000×2+11,100	13,000×3	13,000×3
Sound pressure level*2 /	Cooling	10 (4)	56 / 77	58 / 79	59/80	60 / 81	61/82	60/81	61 / 82	62 / 83	62/83	63/84	63/84	64/84.5	64/85	63 / 85	64 / 85	64 / 85	65 / 85.5	65/86	65 / 86	65 / 86	66 / 87
Power level	Heating	dB (A)	58 / 80	59 / 81	61/83	61/83	61 / 83	62 / 84	62/84	63 / 85	64/86	63 / 85	64 / 86	64/86	64/86	65 / 87.2	65 / 87	65 / 87	66 / 87.7	65 / 87	66 / 88	66 / 88	66 / 88
Maximum external static pre	ssure	Ра	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Compressor motor output		kW	7.5	7.5	7.5	11.0	11.0	7.5×2	7.5×2	7.5×2	7.5×2	11.0+7.5	11.0+7.5	11.0×2	11.0×2	7.5×3	7.5×3	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3
Heat exchanger fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin				
	Height		1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions	Width	mm	930	930	930	1,240	1,240	930×2	930×2	930×2	930×2	1,240+930	1,240+930	1,240×2	1,240×2	930×3	930×3	1,240+930×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×3	1,240×3
	Depth		765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight		kg	262	262	262	286	286	262×2	262×2	262×2	262×2	286+262	286+262	286×2	286×2	262×3	262×3	286+262×2	286+262×2	286×2+262	286×2+262	286×3	286×3
	lobal Warming Pote	ntial)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)				
Refrigerant C	harge k	kg(CO2eq-T)	11.8 (24.6)	11.8 (24.6)	11.8 (24.6)	11.8 (24.6)	11.8 (24.6)	11.8×2	11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)
· · ·	Liquid		12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
Connection pipe diameter	Discharge Gas	mm	15.88	19.05	19.05	22.22	22.22	22.22	22.22	28.58	28.58	28.58	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92
	Suction Gas		22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27
	Cooling		-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46				
Operation range	Heating	*C	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21				
	Cooling/Heating		-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21				

#### Energy Efficiency Combinations

Rating Capacit	ty range		HP	16	22	24	26	28	30	32	34	36	38	40	42	44				
Model name				AJH144GALHH	AJH198GALHH	AJH216GALHH	AJH234GALHH	AJH252GALHH	AJH270GALHH	AJH288GALHH	AJH306GALHH	AJH324GALHH	AJH342GALHH	AJH360GALHH	AJH378GALHH	AJH396GALHH				
Unit 1				AJHA72GALH	AJH126GALH	AJHA72GALH	AJHA90GALH	AJHA90GALH	AJHA90GALH	AJH126GALH	AJH126GALH	AJH126GALH	AJH126GALH	AJH144GALH	AJH126GALH	AJH144GALH				
Unit 2				AJHA72GALH	AJHA72GALH	AJHA72GALH	AJHA72GALH	AJHA90GALH	AJHA90GALH	AJHA90GALH	AJHA90GALH	AJH126GALH	AJH126GALH	AJH126GALH	AJH126GALH	AJH126GALH				
Unit 3				24		AJHA72GALH	AJHA72GALH	AJHA72GALH	AJHA90GALH	AJHA72GALH	AJHA90GALH	AJHA72GALH	AJHA90GALH	AJHA90GALH	AJH126GALH	AJH126GALH				
	inectable Indoo			24	33	36	39	42	45	48	51	54	57	60	64	64				
Indoor unit conr	nectable capacity	Cooling	kW	22.4-67.2	31.2-93.6	33.6-100.8	36.4-109.2	39.2-117.6	42.0-126.0	45.2-135.6	48.0-144.0	51.2-153.6	54.0-162.0	56.5-169.5	60.0-180.0	62.5-187.5				
Power source				3-phase 4 wire, 400 V, 50Hz										3-phase 4 wire, 400 V, 50Hz						
		Cooling		44.8	62.4	67.2	72.8	78.4	84.0	90.4	96.0	102.4	108.0	113.0	120.0	125.0				
Capacity		Nominal Heating	kW	-	-	-	-	-	-	-	-	-	-	-	-	-				
		Max Heating		50.0	70.0	75.0	81.5	88.0	94.5	101.5	108.0	115.0	121.5	126.5	135.0	140.0				
		Cooling		10.90	16.79	16.35	18.01	19.67	21.33	23.90	25.56	28.13	29.79	32.06	34.02	36.29				
Input power		Nominal Heating	kW	-	-	-	-	_	-	_	_	-	_	-	-	-				
		Max Heating		11.40	16.60	17.10	18.73	20.36	21.99	23.93	25.56	27.50	29.13	31.00	32.70	34.57				
EER		Cooling		4.11	3.72	4.11	4.04	3.99	3.94	3.78	3.76	3.64	3.63	3.52	3.53	3.44				
		Nominal Heating	W/W	-	-	_	-	_	-	-	_	-	_	-	-	-				
СОР		Max Heating		4.39	4.22	4.39	4.35	4.32	4.30	4.24	4.23	4.18	4.17	4.08	4.13	4.05				
Air flow rate		High	m³/h	11,100×2	13,000+11,100	11,100×3	11,100×3	11,100×3	11,100×3	13,000+11,100×2	13,000+11,100×2	13,000×2+11,100	13,000×2+11,100	13,000×2+11,100	13,000×3	13,000×3				
Sound pressur	e level*2 /	Cooling	10 (4)	59 / 80	61 / 82	61 / 82	62/83	62/83	63 / 84	63 / 84	64 / 85	64 / 85	64 / 86	65 / 86	65 / 86	65/86				
Power level		Heating	dB (A)	61 / 83	63 / 85	63 / 85	63 / 85	63 / 85	64/86	64/86	65 / 87	65 / 87	65 / 87	65 / 87	66 / 88	66/88				
Maximum exte	ernal static pres	sure	Pa	80	80	80	80	80	80	80	80	80	80	80	80	80				
Compressor m	otor output		kW	7.5×2	11.0+7.5	7.5×3	7.5×3	7.5×3	7.5×3	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3				
Heat exchange	er fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin				
		Height		1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690				
Dimensions		Width	mm	930×2	1,240+930	930×3	930×3	930×3	930×3	1,240+930×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×2+930	1,240×3	1,240×3				
		Depth		765	765	765	765	765	765	765	765	765	765	765	765	765				
Weight			kg	262×2	286+262	262×3	262×3	262×3	262×3	286+262×2	286+262×2	286×2+262	286×2+262	286×2+262	286×3	286×3				
	Type (Glo	bal Warming Po	tential)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)				
Refrigerant	Ch	arge	kg(CO2eq-T)	11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)				
		Liquid		12.70	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05				
Connection pip	pe diameter	Discharge Gas	mm	22.22	28.58	28.58	28.58	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92				
		Suction Gas	1	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27				
		Cooling		-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46				
Operation rang	ge	Heating	°C	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21				
	-	Cooling/Heating	1	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21				
Cooling/rea		, , ,	1					1	1		1	1		1						

Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.

\*1 : Minimum connectable indoor unit number is 2.

 $^{\star}2$  : The noise value is the value when measured in an anechoic room.

When measured in the actual installed state, surrounding noise and reflections are

AIRSTAGE VR-II

received and the measured value is usually larger than the indicated value.

# **HEAT PUMP TYPE** AIRSTAGE V- III series

Smart and cutting edge design Extensive lineup from 8HP to 54HP in 2HP increment Connectable indoor unit capacity ratio up to 150%

# System Outline

#### Excellent energy saving

Heat pump inverter type realizes the highly energy saving air conditioning for individual cooling and heating operation by all inverter technology for seasonal efficiency.

# High design flexibility for various building air conditioning

High design flexibly meets the various needs of high-rise building air conditioning such as outdoor unit roof top concentrated installation and each floor installation by large capacity combination, sufficient connection capacity and high static pressure design.

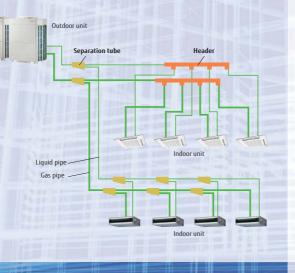
#### Easy installation and maintenance

The flexible communication method and piping connections makes installation and maintenance easy even for large systems.



#### System configuration example

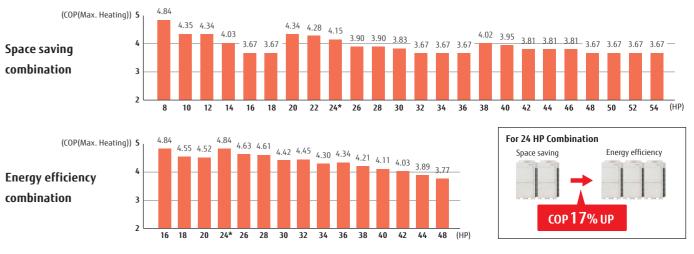
- This system is used for medium-sized and large buildings.
  Connecting each outdoor unit makes it possible to create a highcapacity system.
- Connection of multiple indoor units using separation tubes and headers



#### Features

#### Efficiency in actual operation

Top class high COP (Max. Heating) is realized for all combinations by our unique heat exchanger structure, high efficient DC twin compressor, and other our own technologies.



#### Energy saving technology that boosted operation efficiency



#### Powerful large propeller fan

By using CFD<sup>\*1</sup> technology, a newly designed fan achieves high performance and low noise operation. \*1. CFD = Computational Fluid Dynamics



#### 3 phase DC fan motor

Efficiency is substantially improved by high efficient motor with sophisticated driver control. In addition, low noise is realized by DC fan motor.



#### Subcool heat exchanger

High Heat Exchange efficiency is achieved by using an internal projection shape double pipe construction.



#### Sine-wave DC inverter control High efficiency is realized by adoption of reduced switching loss IPM.





## 4-face heat exchanger

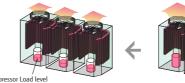
Heat exchange efficiency is significantly improved by the introduction of a new 4-face heat exchanger that increases effective surface area.

Front intake port (corner cut air inhaling structure)

#### Advanced energy saving control

#### Multiple outdoor operation control

This control method operates all compressors at part load and distributes refrigerant to all heat exchangers to improve the overall system efficiency.





High efficient operation

Inofficient

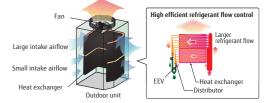
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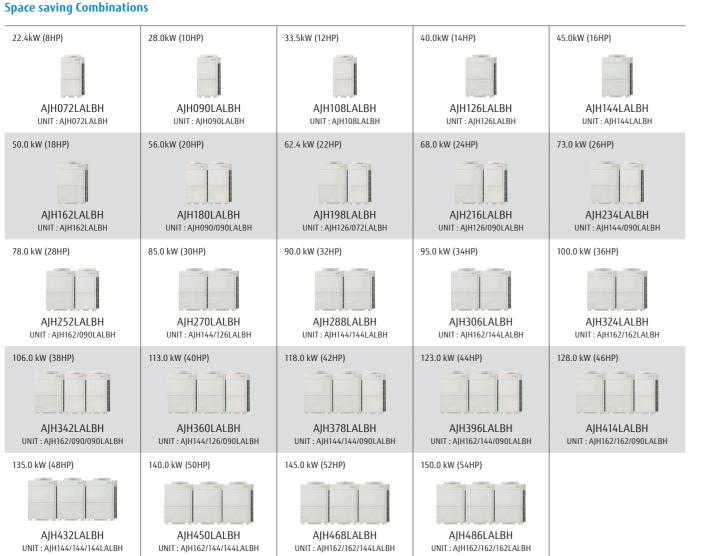
with 0.1Hz steps compressor speed control

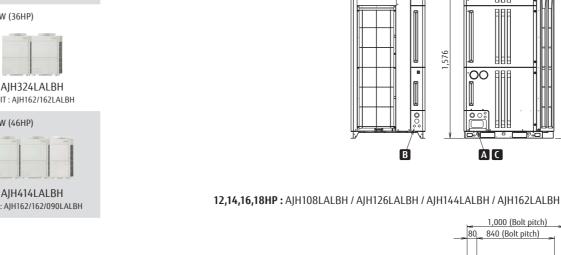


#### Heat exchanger refrigerant control

The efficiency of the top and bottom heat exchanger in the outdoor unit has been improved by adopting an optimum refrigerant path control.

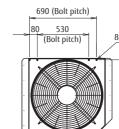


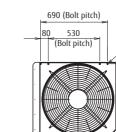




#### Dimensions

8,10HP: AJH072LALBH / AJH090LALBH

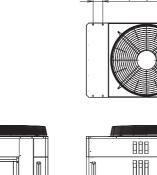




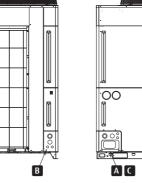
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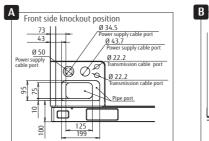
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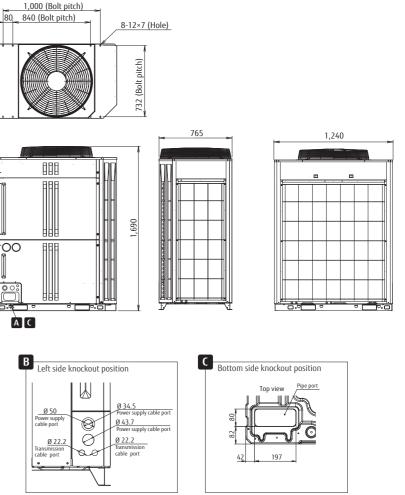
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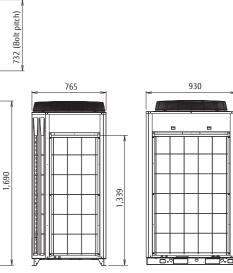




AIRSTAGE V-

(Unit : mm)

#### 8-12 × 17 (Hole)



(Unit : mm)

### Space Saving combinations

Rating Capacity range		HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
Model name			ΔIH072I ΔI BH					I AJH162LALBH	-				-	AIH270LALBH				AJH342LALBH								-
Unit 1								AJH162LALBH						AJH144LALBH	1	AJH162LALBH	AJH162LALBH	AJH162LALBH	AJH144LALBH	AJH144LALBH	AJH162LALBH	AJH162LALBH	AJH144LALBH	AJH162LALBH	AJH162LALBH	AJH162LALBH
Unit 2									AJH090LALBH	AJH072LALBH	AJH090LALBH	AJH090LALBH	AJH090LALBH	AJH126LALBH	AJH144LALBH	AJH144LALBH	AJH162LALBH	AJH090LALBH	AJH126LALBH	AJH144LALBH	AJH144LALBH	AJH162LALBH	AJH144LALBH	AJH144LALBH	AJH162LALBH	AJH162LALBH
Unit 3																		AJH090LALBH	AJH090LALBH	AJH090LALBH	AJH090LALBH	AJH090LALBH	AJH144LALBH	AJH144LALBH	AJH144LALBH	AJH162LALBH
Maximum Connectable Ind			17	21	26	30	34	39	43	47	52	56	60	64	64	64	64	64	64	64	64	64	64	64	64	64
Indoor unit connectable capac	ity Cooling	kW	11.2-33.6	14.0-42.0	16.8-50.2	20.0-60.0	22.5-67.5	25.0-67.5	28.0-84.0	31.2-93.6	34.0-102.0	36.5-109.5	39.0-109.5	42.5-127.5	45.0-135.0	47.5-135.0	50.0-135.0	53.0-151.5	56.5-169.5	59.0-177.0	61.5-177.0	64.0-177.0	67.5-202.5	70.0-202.5	72.5-202.5	75.0-202.5
Power source							3-pl	hase 4 wire, 400 V	, 50Hz										3-ph	ase 4 wire, 400 V,	50Hz					
	Cooling		22.4	28.0	33.5	40.0	45.0	50.0	56.0	62.4	68.0	73.0	78.0	85.0	90.0	95.0	100.0	106.0	113.0	118.0	123.0	128.0	135.0	140.0	145.0	150.0
Capacity	Nominal Heating	kW	22.4	28.0	33.5	40.0	45.0	50.0	-	-	-	-	-	-	-	-	-	_	-	-	-	—	—	-	-	-
	Max Heating		25.0	31.5	37.5	45.0	50.0	50.0	63.0	70.0	76.5	81.5	81.5	95.0	100.0	100.0	100.0	113.0	126.5	131.5	131.5	131.5	150.0	150.0	150.0	150.0
	Cooling		5.20	7.28	8.96	10.96	13.01	16.56	14.56	16.16	18.24	20.29	23.84	23.97	26.02	29.57	33.12	31.12	31.25	33.30	36.85	40.40	39.03	42.58	46.13	49.68
Input power	Nominal Heating	kW	4.31	5.98	7.10	8.97	11.09	13.63	-	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-	-
	Max Heating		5.17	7.25	8.65	11.17	13.63	13.63	14.50	16.34	18.42	20.88	20.88	24.80	27.26	27.26	27.26	28.13	32.05	34.51	34.51	34.51	40.89	40.89	40.89	40.89
EER	Cooling		4.31	3.85	3.74	3.65	3.46	3.02	3.85	3.86	3.73	3.60	3.27	3.55	3.46	3.21	3.02	3.41	3.62	3.54	3.34	3.17	3.46	3.29	3.14	3.02
COP	Nominal Heating	W/W	5.20	4.69	4.72	4.46	4.06	3.67	-	-	-	-	-		-	-	-	-	-	-	-	-	-	_	-	-
	Max Heating		4.84	4.35	4.34	4.03	3.67	3.67	4.34	4.28	4.15	3.90	3.90	3.83	3.67	3.67	3.67	4.02	3.95	3.81	3.81	3.81	3.67	3.67	3.67	3.67
Air flow rate	High	m³/h	11,100	11,100	13,000	13,000	13,700	13,700	11,100×2	13,000+11,100	13,000+11,100	13,000+11,100	13,700+11,100	13,700+13,000	0 13,700×2	13,700×2	13,700×2	13,700+11,100×2	13,700+13,000+ 11,100	13,700×2+11,100	13,700×2+11,100	13,700×2+11,100	13,700×3	13,700×3	13,700×3	13,700×3
Sound pressure level*2 /	Cooling	dB (A)	56 / 77	58/79	57 / 78	60 / 81	62/83	63 / 84	61 / 82	61 / 82	62/83	63 / 84	64 / 85	64/85	65 / 88	66 / 87	66 / 87	65 / 86	65/86	66 / 87	66 / 87	67 / 87	67 / 88	67/88	67 / 88	68 / 89
Power level	Heating	UD (A)	58 / 80	59 / 81	60 / 83	62/84	64/86	64 / 86	62/84	63 / 85	64/86	65 / 87	65 / 87	66 / 88	67 / 89	67 / 89	67 / 89	66 / 88	67 / 89	68 / 90	68 / 90	68 / 90	69 / 91	69 / 91	69 / 91	69 / 91
Maximum external static p	essure	Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor output		kW	7.5	7.5	11.0	11.0	11.0	11.0	7.5×2	11.0+7.5	11.0+7.5	11.0+7.5	11.0+7.5	11.0×2	11.0×2	11.0×2	11.0×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3
Heat exchanger fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
	Height		1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions	Width	mm	930	930	1,240	1,240	1,240	1,240	930×2	1,240+930	1,240+930	1,240+930	1,240+930	1,240×2	1,240×2	1,240×2	1,240×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×2+930	1,240×2+930	1,240×3	1,240×3	1,240×3	1,240×3
	Depth		765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight		kg	252	252	275	275	275	275	252×2	275+252	275+252	275+252	275+252	275×2	275×2	275×2	275×2	275+252×2	275×2+252	275×2+252	275×2+252	275×2+252	275×3	275×3	275×3	275×3
Туре (	Global Warming Pote	ntial)	R410A (2,088)	R410A (2,088)	R410A (2,088)	) R410A (2,088)	R410A (2,088	) R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)
Refrigerant	Charge	نg(CO2eq-T)	11.7 (24.4)	11.7 (24.4)	11.8 (24.6)	11.8 (24.6)	11.8 (24.6)	11.8 (24.6)	11.7×2 (24.4×2)	11.8+11.7 (24.6+24.4)	11.8+11.7 (24.6+24.4)	11.8+11.7 (24.6+24.4)	11.8+11.7 (24.6+24.4)	11.8×2 (24.6×2	) 11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8+11.7×2 (24.6+24.4×2)	11.8×2+11.7 (24.6×2+24.4)	11.8×2+11.7 (24.6×2+24.4)	11.8×2+11.7 (24.6×2+24.4)	11.8×2+11.7 (24.6×2+24.4)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)
Connection pipe diameter	Liquid	mm	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
connection pipe dialifeter	Discharge Gas		22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27
Operation range	Cooling	*0	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46
operation range	Heating	C	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

### Energy Efficiency combinations

Rating Capacity	y range		HP	16	18	20	24	26	28	30	32	34	36	38	40	42	44	46
Model name				AJH144LALBHH	AJH162LALBHH	AJH180LALBHH	AJH216LALBHH	AJH234LALBHH	AJH252LALBHH	AJH270LALBHH	AJH288LALBHH	AJH306LALBHH	AJH324LALBHH	AJH342LALBHH	AJH360LALBHH	AJH378LALBHH	AJH396LALBHH	AJH414LALBHH
Unit 1					AJH090LALBH	,		AJH090LALBH	,	,	AJH108LALBH	,	AJH108LALBH		AJH126LALBH	AJH126LALBH	AJH144LALBH	AJH144LALBH
Unit 2 Unit 3				AJH072LALBH	AJH072LALBH	AJH072LALBH	AJH072LALBH AJH072LALBH	AJH072LALBH AJH072LALBH	AJH072LALBH AJH072LALBH	AJH072LALBH AJH072LALBH	AJH108LALBH AJH072LALBH	AJH108LALBH AJH072LALBH	AJH108LALBH AJH108LALBH	AJH108LALBH AJH108LALBH	AJH126LALBH AJH108LALBH	AJH126LALBH AJH126LALBH	AJH126LALBH AJH126LALBH	AJH144LALBH AJH126LALBH
Maximum Conn		r Unit*1		34	39	43	52	56	60	64	64	64	AJITIOOLALDIT	AJITOBEAEBIT	64	64	64	64
Indoor unit conne		-	kW	22.4-67.2	25.2-75.6	28.0-83.8	33.6-100.8	36.4-109.2	39.2-117.4	42.4-127.2	44.7-134.1	48.0-143.8	50.3-150.7	53.5-160.5	56.8-170.2	60.0-180.0	62.5-187.5	65.0-195.0
	,	, ,						2.1	( (00)							2 4 4 4	(00)/ 500	
Power source		Caslina		44.8	50.4	55.9	67.2	3-pna 72.8	ase 4 wire, 400 V 78.3	84.8	89.4	95.9	100.5	107.0	113.5	3-phase 4 wir 120.0	e, 400 V, 50HZ 125.0	130.0
<i>c</i>		Cooling	1.14	44.8	50.4	- 55.9	67.2	/2.8	/8.3	84.8	89.4	95.9	100.5	-	-	- 120.0	125.0	130.0
Capacity		Nominal Heating	kW															
		Max Heating		50.0	56.5	62.5	75.0	81.5	87.5	95.0	100.0	107.5	112.5	120.0	127.5	135.0	140.0	145.0
		Cooling	kW	10.40	12.48	14.16	15.60	17.68	19.36	21.36	23.12	25.12	26.88	28.88	30.88	32.88	34.93	36.98
Input power		Nominal Heating	KVV	10.34	12.42	13.82	15.51	17.59	18.99	21.51	22.47	24.99	25.95	28.47	30.99	33.51	35.97	38.43
EER		Max Heating Cooling		4.31	4.04	3.95	4.31	4.12	4.04	3.97	3.87	3.82	3.74	3.70	3.68	3.65	3.58	3.52
		Nominal Heating	w/w	4.51	4.04	5.95	4.51	4.12	4.04		- 3.07	5.02		-	5.00	-		5.52
СОР		Max Heating	VV/ VV	4.84	4.55	4.52	4.84	4.63	4.61	4.42	4.45	4.30	4.34	4.21	4.11	4.03	3.89	3.77
		Max reading		4.04	4.55	4.32	4.04	4.05					4.54	4.21	4.11	4.05	3.09	5.77
Air flow rate		High	m <sup>3</sup> /h	11,100×2	11,100×2	13,000+11,100	11,100×3	11,000×3	13,000+ 11,100×2	13,000+ 11,100×2	13,000×2+ 11,100	13,000×2+ 11,100	13,000×3	13,000×3	13,000×3	13,000×3	13,700+13,000×2	13,700×2+13,000
Sound pressure	e level*2 /	Cooling	dB (A)	59 / 80	60 / 81	60 / 81	61 / 82	62 / 83	61 / 82	63/84	61 / 82	63/84	63 / 83	64/84	64/85	65 / 88	66 / 87	66 / 87
Power level		Heating	UB (A)	61/83	62/84	62/85	63 / 85	63 / 85	64/86	65 / 87	64/87	65/88	65 / 88	65 / 88	66 / 88	67/89	68 / 90	68/90
Maximum exter	rnal static pres	isure	Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor mo	otor output		kW	7.5×2	7.5×2	11.0+7.5	7.5×3	7.5×3	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3
Heat exchange	r fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
		Height		1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions		Width	mm	930×2	930×2	1,240+930	930×3	930×3	1,240+930×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×3	1,240×3	1,240×3	1,240×3	1,240×3	1,240×3
		Depth		765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight			kg	252×2	252×2	275+252	252×3	252×3	275+252×2	275+252×2	275×2+252	275×2+252	275×3	275×3	275×3	275×3	275×3	275×3
	Type (Glo	obal Warming Pote	ential)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)
Refrigerant	Ch	large	kg(CO2eq-T)	11.7×2 (24.4×2)	11.7×2 (24.4×2)	11.8+11.7 (24.6+24.4)	11.7×3 (24.4×3)	11.7×3 (24.4×3)	11.8+11.7×2 (24.6+24.4×2)	11.8+11.7×2 (24.6+24.4×2)	11.8×2+11.7 (24.6×2+24.4)	11.8×2+11.7 (24.6×2+24.4)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)
		Liquid		12.70	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
Connection pipe	e alameter	Discharge Gas	mm	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27
		Cooling	*6	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46
Operation range	e	Heating	*C	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.

\*1 : Minimum connectable indoor unit number is 2. However ARXC72 and ARXC90 can be used signal connection.
 \*2 : The noise value is the value when measured in an anechoic room.

When measured in the actual installed state, surrounding noise and reflections are

received and the measured value is usually larger than the indicated value.

∕AIRSTAGE V-Ⅲ

# **HEAT PUMP TYPE**

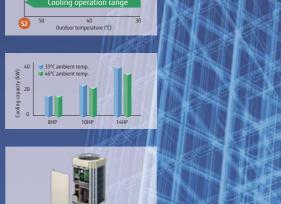
Fujitsu General tropical VRF is designed for tropical weather. Extensive lineup from 8HP to 54HP in 2HP increment Connectable indoor unit capacity ratio up to 130%

### System Outline

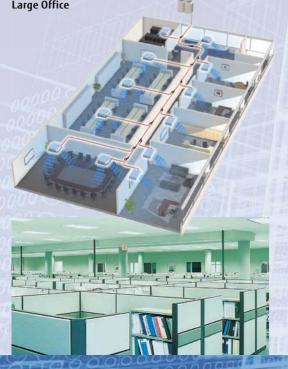
High ambient operation design Possible to operate cooling up to 52°C outdoor temperature

Powerful cooling capacity design Keeping high cooling power at even high ambient temperature

Anti-corrosion treatment design All metalic and PCB components are protected against corrosion

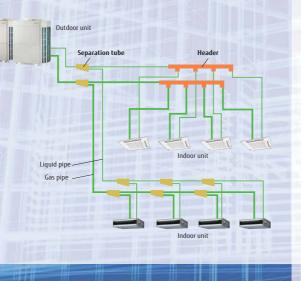


### Large Office



#### System configuration example

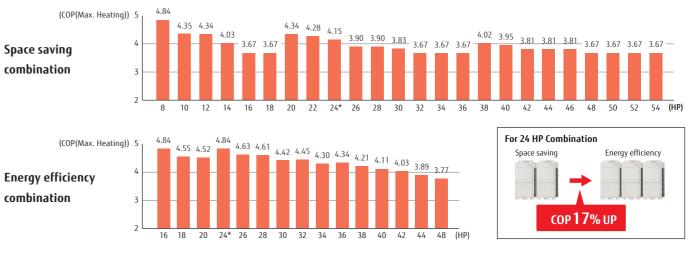
- This system is used for medium-sized and large buildings.
  Connecting each outdoor unit makes it possible to create a highcapacity system.
- Connection of multiple indoor units using separation tubes and headers



### Features

### Efficiency in actual operation

Top class high COP(Max. Heating) is realized for all combinations by our unique heat exchanger structure, high efficient DC twin compressor, and other our own technologies.



### Energy saving technology that boosted operation efficiency



#### Powerful large propeller fan

By using CFD\*1 technology, a newly designed fan achieves high performance and low noise operation. \*1. CFD = Computational Fluid Dynamics



#### 3 phase DC fan motor

Efficiency is substantially improved by high efficient motor with sophisticated driver control. In addition, low noise is realized by DC fan motor.



#### Subcool heat exchanger

High Heat Exchange efficiency is achieved by using an internal projection shape double pipe construction.



Sine-wave DC inverter control High efficiency is realized by adoption of reduced switching loss IPM.



#### High efficient & Large capacity DC inverter compressor Large capacity high efficient DC twin rotary compressor





#### 4-face heat exchanger Heat exchange efficiency is significantly improved by the introduction of a

new 4-face heat exchanger that increases effective surface area.

Front intake port (corner cut air inhaling structure)

### Advanced energy saving control

#### Multiple outdoor operation control

This control method operates all compressors at part load and distributes refrigerant to all heat exchangers to improve the overall system efficiency.





High efficient operation

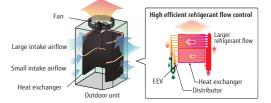
Inofficient

with 0.1Hz steps compressor speed control



#### Heat exchanger refrigerant control

The efficiency of the top and bottom heat exchanger in the outdoor unit has been improved by adopting an optimum refrigerant path control.



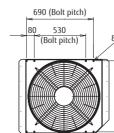
Space saving combinations 22.4kW (8HP) 28.0kW (10HP) 33.5kW (12HP) 40.0kW (14HP) 45.0kW (16HP) AJH072LNLBH AJH090LNLBH AJH108LNLBH AJH126LNLBH UNIT : AJH072LNLBH UNIT : AJH090LNLBH UNIT : AJH108LNLBH UNIT : AJH126LNLBH 50.0 kW (18HP) 56.0kW (20HP) 62.4 kW (22HP) 68.0 kW (24HP) 73.0 kW (26HP) AJH162LNLBH AJH180LNLBH AJH198LNLBH AJH216LNLBH UNIT: AJH126/072LNLBH UNIT : AJH162LNLBH UNIT : AJH090/090LNLBH UNIT : AJH126/090LNLBH 78.0 kW (28HP) 85.0 kW (30HP) 90.0 kW (32HP) 95.0 kW (34HP) 100.0 kW (36HP) AJH252LNLBH AJH270LNLBH AJH288LNLBH AJH306LNLBH UNIT: AJH162/090LNLBH UNIT : AJH144/126LNLBH UNIT: AJH144/144LNLBH UNIT : AJH162/144LNLBH 106.0 kW (38HP) 113.0 kW (40HP) 118.0 kW (42HP) 123.0 kW (44HP) 128.0 kW (46HP) AJH342LNLBH AJH360LNLBH AJH378LNLBH AJH396LNLBH UNIT : AIH144/126/090LNLBH UNIT : AIH162/144/090LNLBH UNIT · AIH162/090/090I NI BH UNIT · AIH144/144/090I NI BH 135.0 kW (48HP) 140.0 kW (50HP) 145.0 kW (52HP) 150.0 kW (54HP)

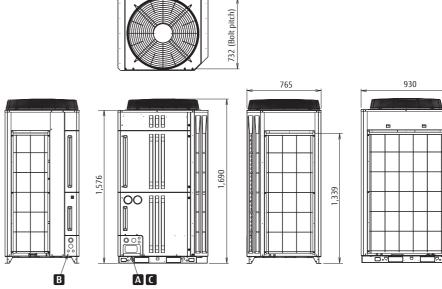




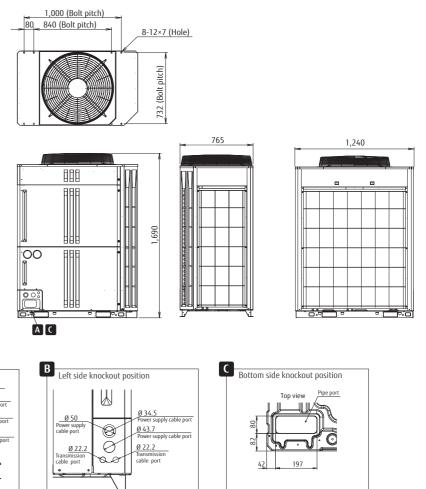
#### Dimensions

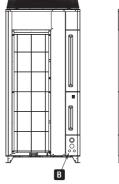
8,10HP: AJH072LNLBH / AJH090LNLBH



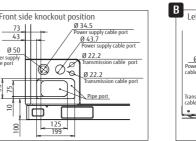


12,14,16,18HP: AJH108LNLBH / AJH126LNLBH / AJH144LNLBH / AJH162LNLBH





A





(Unit : mm)

#### 8-12 × 17 (Hole)

(Unit : mm)

#### Space Saving Combinations

Rating Capacity ran Model name														20	2.0	2.2	24	24	20	10	( )		1.6	10	50	5.2	
Model name	nge		HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
11.11.4												AJH216LNLBH			AJH270LNLBH	AJH288LNLBH	AJH306LNLBH	AJH324LNLBH	AJH342LNLBH	AJH360LNLBH	AJH378LNLBH	AJH396LNLBH	AJH414LNLBH	AJH432LNLBH	AJH450LNLBH	AJH468LNLBH	
Unit 1				AJH072LNLBH	AJH090LNLBH	I AJH108LNLBH	AJH126LNLBH	I AJH144LNLBH	H AJH162LNLBH					AJH162LNLBH	AJH144LNLBH	AJH144LNLBH	AJH162LNLBH	AJH162LNLBH	AJH162LNLBH	AJH144LNLBH	AJH144LNLBH	AJH162LNLBH	AJH162LNLBH	AJH144LNLBH	AJH162LNLBH	AJH162LNLBH	AJH162LNLBH
Unit 2										AJH090LNLBH	AJH072LNLBH	AJH090LNLBH	AJH090LNLBH	AJH090LNLBH	AJH126LNLBH	AJH144LNLBH	AJH144LNLBH	AJH162LNLBH	AJH090LNLBH	AJH126LNLBH	AJH144LNLBH	AJH144LNLBH	AJH162LNLBH	AJH144LNLBH	AJH144LNLBH	AJH162LNLBH	AJH162LNLBH
Unit 3																			AJH090LNLBH	AJH090LNLBH	AJH090LNLBH	AJH090LNLBH	AJH090LNLBH	AJH144LNLBH	AJH144LNLBH	AJH144LNLBH	AJH162LNLBH
Maximum Connecta				13	16	19	23	26	29	33	36	40	43	46	50	53	55	55	55	55	55	55	55	55	55	55	55
Indoor unit connectat	able capacity	Cooling	kW	11.2-29.1	14-36.4	16.8-43.5	20-52	22.5-58.5	25-65	28-72.8	31.2-81.1	34-88.4	36.5-94.9	39-101.4	42.5-110.5	45-117	47.5-123.5	50-130	53-137.8	56.5-146.9	59-153.4	61.5-159.9	64-166.4	67.5-175.5	70-182	72.5-188.5	75-195
Power source								3-ph	hase 4 wire, 400	/, 50Hz			1							3-pl	nase 4 wire, 400 V,	50Hz			1		
		Cooling		22.4	28.0	33.5	40.0	45.0	50.0	56.0	62.4	68.0	73.0	78.0	85.0	90.0	95.0	100.0	106.0	113.0	118.0	123.0	128.0	135.0	140.0	145.0	150.0
	1	Nominal Heating	kW	22.4	28.0	33.5	40.0	45.0	50.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ca	apacity	Max Heating		25.0	31.5	37.5	45.0	50.0	50.0	63.0	70.0	76.5	81.5	81.5	95.0	100.0	100.0	100.0	113.0	126.5	131.5	131.5	131.5	150.0	150.0	150.0	150.0
	[	Cooling	Btu/h	76,400	95,500	114,300	136,500	153,500	170,600	191,000	212,900	232,000	249,000	266,100	290,000	307,000	324,100	341,200	361,600	385,500	402,500	419,600	436,700	460,500	477,600	494,700	511,800
		Heating	DLU/II	85,300	107,500	128,000	153,500	170,600	170,600	215,000	238,800	261,000	278,100	278,100	324,100	341,200	341,200	341,200	385,600	431,600	448,700	448,700	448,700	511,800	511,800	511,800	511,800
		Cooling		5.20	7.28	8.96	10.96	13.01	16.56	14.56	16.16	18.24	20.29	23.84	23.97	26.02	29.57	33.12	31.12	31.25	33.30	36.85	40.40	39.03	42.58	46.13	49.68
T1 Inv	nput power	Nominal Heating	kW	4.31	5.98	7.10	8.97	11.09	13.63	-		-	_	-		-	-	-	-	-	-	-	-	-	-	-	-
condition		Max Heating		5.17	7.25	8.65	11.17	13.63	13.63	14.50	16.34	18.42	20.88	20.88	24.80	27.26	27.26	27.26	28.13	32.05	34.51	34.51	34.51	40.89	40.89	40.89	40.89
	urrent	Cooling	А	9.2	12.0	15.0	17.7	20.7	26.1	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-
		Heating		9.2	12.2	14.6	18.2	21.5	21.5	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-
EE	ER	Cooling		4.31	3.85	3.74	3.65	3.46	3.02	3.85	3.86	3.73	3.60	3.27	3.55	3.46	3.21	3.02	3.41	3.62	3.54	3.34	3.17	3.46	3.29	3.14	3.02
CO	OP -	Nominal Heating	W/W	5.20	4.69	4.72	4.46	4.06	3.67	-	-	-		-		-	-	-	-	-	-	-	-	-	-	-	-
	50	Max Heating		4.84	4.35	4.34	4.03	3.67	3.67	4.34	4.28	4.15	3.90	3.90	3.83	3.67	3.67	3.67	4.02	3.95	3.81	3.81	3.81	3.67	3.67	3.67	3.67
EE		Cooling	Btu/h/W	14.7	13.1	12.8	12.5	11.8	10.3	13.1	13.2	12.7	12.3	11.2	12.1	11.8	11.0	10.3	11.6	12.3	12.1	11.4	10.8	11.8	11.2	10.7	10.3
	UP	Heating	1.14/		14.8		32	35.1	12.5	50.4	52.2	14.2	13.3	60.4	67.1	12.5	70.3	70.4		92.3		13.0	95.6	12.5	12.5		105.6
Ca	apacity		kW Btu/h	20.2	25.2	28.5	109.200	119.800	35.2	172.000	178.100	195.200	60.3	206,100	229.000	239.600	239.900	240.200	85.6 292.100	315.000	95.4	95.5 325.900	326.200	359.400	359.700	105.5 360.000	360.300
T3	put power		kW	6,73	9.20	9,34	10,200	11,82	120,100	172,000	178,100	193,200	203,800	21.55	22,000	235,000	239,900	240,200	30.75	31.72	32,800	33.37	33.90	35,400	35.99	36.52	37.05
	urrent	Cooling	A	10.8	14.5	14.7	16.9	18.6	19.2	10.35	- 17.44	19.90	21.02	_		23.04				51.72	52.05					- 50.32	57.05
			W/W	3.00	2.74	3.05	2.99	2.97	2.85	2.74	2.99	2.87	2.87	2.80	2.98	2.97	2.91	2.85	2.78	2.91	2.91	2.86	2.82	2.97	2.93	2.89	2.85
EE	ER		Btu/h/W	10.23	9.35	10.40	10.20	10.14	9.72	9.35	10.21	9.81	9.79	9.56	10.17	10.14	9.93	9.72	9.50	9.93	9.92	9.77	9.62	10.14	10.00	9.86	9.72
Power factor			%	90	92	92	92	92	93	-	-	-	-	_	-	-		-	-	_	-	-	-	-	-	-	-
					52			52								-				13,700+13,000+							<u> </u>
Air flow rate		High	m <sup>3</sup> /h	11,100	11,100	13,000	13,000	13,700	13,700	11,100×2	13,000+11,100	13,000+11,100	13,700+11,100	13,700+11,100	13,700+13,000	13,700×2	13,700×2	13,700×2	13,700+11,100×2	11,100	13,700×2+11,100	13,700×2+11,100	13,700×2+11,100	13,700×3	13,700×3	13,700×3	13,700×3
Sound pressure leve	vel*2/	Cooling	10 (1)	56/77	58/79	57 / 78	60/81	62/83	63/84	61/82	61/82	62/83	63/84	64/85	64/85	65 / 88	66 / 87	66 / 87	65/86	65/86	66 / 87	66 / 87	67 / 87	67 / 88	67/88	67/88	68/89
Power level	ľ	Heating	dB (A)	58 / 80	59/81	60/83	62/84	64/86	64/86	62/84	63/85	64/86	65/87	65 / 87	66 / 88	67/89	67/89	67/89	66 / 88	67 / 89	68/90	68/90	68/90	69/91	69/91	69/91	69/91
Maximum external	I static press	sure	Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor (	output		kW	7.5	7.5	11	11	11	11	7.5×2	11.0+7.5	11.0+7.5	11.0+7.5	11.0+7.5	11.0×2	11.0×2	11.0×2	11.0×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3
Heat exchanger fin	n			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin				
		Height		1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions		Width	mm	930	930	1,240	1,240	1,240	1,240	930×2	1,240+930	1,240+930	1,240+930	1,240+930	1,240×2	1,240×2	1,240×2	1,240×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×2+930	1,240×2+930	1,240×3	1,240×3	1,240×3	1,240×3
		Depth		765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight			kg	255	255	279	279	279	279	255×2	279+255	279+255	279+255	279+255	279×2	279×2	279×2	279×2	279+255×2	279×2+255	279×2+255	279×2+255	279×2+255	279×3	279×3	279×3	279×3
	Type (Glo	obal Warming Po	ential)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	) R410A (2,088)	<li>R410A (2,088)</li>	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)
Refrigerant	Ch	arge	kg(CO2eq-T)	11.7(24.4)	11.7(24.4)	11.8(24.6)	11.8(24.6)	11.8(24.6)	11.8(24.6)	11.7×2(24.4×2)	11.8+11.7	11.8+11.7	11.8+11.7	11.8+11.7	11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8×2 (24.6×2)	11.8+11.7×2	11.8×2+11.7	11.8×2+11.7	11.8×2+11.7	11.8×2+11.7	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)
	Ch	large	ny(cozeq-i)	11.7(24.4)	11.7(24.4)	11.0(24.0)	11.0(24.0)	11.3(24.0)	11.3(24.0)	11.7.2(24.4^2)	(24.6+24.4)	(24.6+24.4)	(24.6+24.4)	(24.6+24.4)	11.0~2 (24.0~2)	11.0.2 (24.0^2)	11.0.2 (24.0.2)	11.0.2 (24.0.2)	(24.6+24.4×2)	(24.6×2+24.4)	(24.6×2+24.4)	(24.6×2+24.4)	(24.6×2+24.4)	11.0.5 (24.0.5)	11.0.5 (24.0.5)	11.0.5 (24.0.5)	11.0.5 (24.0.5)
Connection pipe dia	iamotor	Liquid	mm	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
connection pipe dia	anleter	Discharge Gas		22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27
Operation range		Cooling	٠٢	-15 to 52	-15 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52				
operation range	Г	Heating	C	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21				

### Energy Efficiency Combinations

Rating Capacity	v range		HP	16	18	20	24	26	28	30	32	34	36	38	40	42	44	46
Model name	,													AJH342LNLBHH	AJH360LNLBHH		AJH396LNLBHH	AJH414LNLBHH
Unit 1				AIH072LNLBH	AIH090LNLBH	AIH108LNLBH	AIH072LNLBH	AIH090LNLBH	AIH108LNLBH	AIH126LNLBH	AIH108LNLBH	AIH126LNLBH	AIH108LNLBH	AIH126LNLBH	AIH126LNLBH	AIH126LNLBH	AIH144LNLBH	AIH144LNLBH
Unit 2					AJH072LNLBH			AJH072LNLBH					AJH108LNLBH		AJH126LNLBH	AJH126LNLBH	AJH126LNLBH	AJH144LNLBH
Unit 3				, grio, Eciteori				AJH072LNLBH		AJH072LNLBH					AJH108LNLBH	AJH126LNLBH	AJH126LNLBH	AJH126LNLBH
Maximum Conr	nectable Indoc	vr llnit		26	29	33	39	43	46	50	52	55	55	55	55	55	55	55
Indoor unit conn			kW	22.4-58.2	25.2-65.5	28-72.6	33.6-87.3	36.4-94.6	39.2-101.7	42.4-110.2	44.7-116.2	48-124.6	50.3-130.6	53.5-139.1	56.8-147.5	60-156	62.5-162.5	65-169
	iccubic capacity	cooning	KII	22.4 50.2	25.2 05.5	2072.0	55.0 07.5	50.4 54.0	55.2 101.7	42.4 110.2	44.7 110.2	40 124.0	50.5 150.0	55.5 155.1	50.0 147.5	00 150	02.5 102.5	05105
Power source								3-ph	ase 4 wire, 400 V	, 50Hz						3-phase 4 wir	e, 400 V, 50Hz	
		Cooling		44.8	50.4	55.9	67.2	72.8	78.3	84.8	89.4	95.9	100.5	107.0	113.5	120.0	125.0	130.0
		Nominal Heating	kW	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Capacity	Max Heating		50.0	56.5	62.5	75.0	81.5	87.5	95.0	100.0	107.5	112.5	120.0	127.5	135.0	140.0	145.0
		Cooling	Btu/h	152,800	171,900	190,700	229,200	248,300	267,100	289,300	305,000	327,200	342,900	365,100	387,300	409,500	426,500	443,500
		Heating	bcan	170,600	192,800	213,300	255,900	278,100	298,600	324,100	341,300	366,800	384,000	409,500	435,000	460,500	477,600	494,700
		Cooling		10.40	12.48	14.16	15.60	17.68	19.36	21.36	23.12	25.12	26.88	28.88	30.88	32.88	34.93	36.98
T1	Input power		kW	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
condition		Max Heating		10.34	12.42	13.82	15.51	17.59	18.99	21.51	22.47	24.99	25.95	28.47	30.99	33.51	35.97	38.43
condition	Current	Cooling	А	_	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Heating	~	-	-	-	-	-	-	-		-	-	-	-	-	-	-
	EER	Cooling		4.31	4.04	3.95	4.31	4.12	4.04	3.97	3.87	3.82	3.74	3.70	3.68	3.65	3.58	3.52
	COP	Nominal Heating	W/W		-	-	-	-	-	-		-	-	-	-	-	-	-
		Max Heating		4.84	4.55	4.52	4.84	4.63	4.61	4.42	4.45	4.30	4.34	4.21	4.11	4.03	3.89	3.77
	EER	Cooling	Btu/h/W	14.7	13.8	13.5	14.7	14.0	13.8	13.5	13.2	13.0	12.8	12.6	12.5	12.5	12.2	12.0
	COP	Heating		16.5	15.5	15.4	16.5	15.8	15.7	15.1	15.2	14.7	14.8	14.4	14.0	13.7	13.3	12.9
	Capacity		kW	40.4	45.4	48.7	60.6	65.6	68.9	72.4	77.2	80.7	85.5	89.0	92.5	96.0	99.1	102.2
	. ,	_	Btu/h	137,800	154,900	166,100	206,700	223,800	235,000	247,000	263,300	275,300	291,600	303,600	315,600	327,600	338,200	348,800
T3	Input power	Cooling	kW	13.47	15.93	16.08	20.20	22.66	22.81	24.17	25.42	26.78	28.03	29.39	30.75	32.11	33.22	34.34
condition	Current		A	-	-	-	-	-	-	-	_	-	-	-	-	-	-	_
	EER		W/W	3.00	2.85	3.03	3.00	2.89	3.02	3.00	3.04	3.01	3.05	3.03	3.01	2.99	2.98	2.98
			Btu/h/W	10.23	9.72	10.33	10.23	9.87	10.30	10.22	10.36	10.28	10.40	10.33	10.26	10.20	10.18	10.16
Power factor			%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Air flow rate		High	m³/h	11,100×2	11,100×2	13,000+11,100	11,100×3	11,100×3	13,000+ 11,100×2	13,000+ 11,100×2	13,000×2+ 11,100	13,000×2+ 11,100	13,000×3	13,000×3	13,000×3	13,000×3	13,700+13,000×2	13,700×2+13,000
Sound pressure	e level*2 /	Cooling	dB (A)	59 / 80	60 / 81	60/81	61 / 82	62/83	61/82	63/84	61/82	63/84	62/83	63 / 84	64/85	65 / 88	66 / 87	66/87
Power level		Heating	UD (A)	61/83	62/84	62/85	63 / 85	63 / 85	64/86	65/87	64/87	65/88	65 / 88	66 / 88	66 / 88	67 / 89	68 / 90	68/90
Maximum exte	ernal static pre	ssure	Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor mo	otor output		kW	7.5×2	7.5×2	11.0+7.5	7.5×3	7.5×3	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3
Heat exchange	er fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
		Height		1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions		Width	mm	930×2	930×2	1,240+930	930×3	930×3	1,240+930×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×3	1,240×3	1,240×3	1,240×3	1,240×3	1,240×3
		Depth		765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight			kg	255×2	255×2	279+255	255×3	255×3	279+255×2	279+255×2	279×2+255	279×2+255	279×3	279×3	279×3	279×3	279×3	279×3
	Type (G	lobal Warming Po	tential)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)
Refrigerant	0	harge	kg(CO2eq-T)	11.7×2 (24.4×2)	11.7×2 (24.4×2)	11.8+11.7 (24.6+24.4)	11.7×3 (24.4×3)	11.7×3 (24.4×3)	11.8+11.7×2 (24.6+24.4×2)	11.8+11.7×2 (24.6+24.4×2)	11.8×2+11.7 (24.6×2+24.4)	11.8×2+11.7 (24.6×2+24.4)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)	11.8×3 (24.6×3)
Companying 1		Liquid		12.70	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
Connection pip	oe alameter	Discharge Gas	mm	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27
0		Cooling	*0	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
Operation rang	Je	Heating	L	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21
						•	-											

Note: Specifications are based on the following conditions. Cooling(T1): Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB Cooling(T3): Indoor temperature of 29°CDB / 19°CWB, and outdoor temperature of 46°CDB / 24°CWB Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5m. Height difference between outdoor and indoor unit: 0m.

AIRSTAGE V-III 🥡

TROPICAL series

# AIRSTAGE<sup>™</sup> **INDOOR UNITS**

## 14 types and 90 models available to meet the requirements of any building design.

The AIRSTAGE<sup>™</sup> indoor units were developed to be highly efficient, compact, low noise and to have user friendly operation. With a variety of indoor units and capacities available, Fujitsu General has an indoor unit to match any requirement which is easy to install and maintain. Further, a variety of options are available to achieve an air conditioning environment that is more desirable from the user's perspective.

**INDOOR UNITS LINE-UP 3D Flow Cassette** Compact Cassette (Grid type / Standard type) **Circular Flow Cassette** Mini Duct Slim Duct / Slim Concealed Floor **Medium Static Pressure Duct High Static Pressure Duct** Large Airflow Duct **Compact Floor** Floor / Ceiling Ceiling Wall Mounted (EEV Internal / external)

# **INDOOR UNITS LINE-UP**

Comprehensive range of indoor units of variety design and capacity ranges available which can be selected to suit any air conditioning needs. 14 types, 90 models, Capacity range from 1.1kW to 28.0kW

### Indoor units range

Model code			4	7	9	12	14	18	24	30	34	36	45	54	60	72	90	96
Capacity range	(kW)		1.1	2.2	2.8	3.6	4.5	5.6	7.1	9.0	10.0	11.2	12.5	14.0	18.0	22.4	25.0	28.0
	3D Flow Cassette NEW							AUXS018GLEH	AUXS024GLEH									
Cassette	Compact Cassette Grid type / Standard type		AUXB004GLEH	AUXB007GLEH	AUXB009GLEH	AUXB012GLEH	AUXB014GLEH	AUXB018GLEH	AUXB024GLEH									
Cusselle	Circular Flow —	(Slim type)			AUXN009GLAH*4	AUXN012GLAH*4	AUXN014GLAH*4	AUXM018GLEH	AUXM024GLEH	AUXM030GLEH								
		(Large type)						AUXK018GLEH	AUXK024GLEH	AUXK030GLEH	AUXK034GLEH	AUXK036GLEH	AUXK045GLEH	AUXK054GLEH				
	Mini Duct (With drain pump)		ARXK004GLEH	ARXK007GLEH	ARXK009GLEH	ARXK012GLEH	ARXK014GLEH	ARXK018GLEH	ARXK024GLEH									
	Slim Duct (With drain pump)		ARXD04GALH*3	ARXD007GLEH	ARXD009GLEH	ARXD012GLEH	ARXD014GLEH	ARXD018GLEH	ARXD024GLEH									
Duct	Medium Static Pressure Duct								ARXA024GLEH	ARXA030GLEH		ARXA036GLEH	ARXA045GLEH					
	High Static Pressure Duct											ARXC036GTEH	ARXC45GATH		ARXC60GATH*1	ARXC072GTEH*1	ARXC090GTEH*1	ARXC096GTEH*1
	Large Airflow Duct	(Compact type)			ARXN009GLBH*4	ARXN012GLBH*4	ARXN014GLBH*4	ARXN018GLBH	ARXN024GTBH	ARXN030GTBH								
		(Large type)						ARXN18GATH*2	ARXN24GATH*2	ARXN30GATH*2	ARXN34GATH*2	ARXN36GATH*2	ARXN45GATH*2					
	Floor (Same as Ceiling models)					ABHA012GTEH	ABHA014GTEH	ABHA018GTEH	ABHA024GTEH									
Floor	Slim Concealed Floor (Same as Slim Duct models)		ARXD04GALH*3	ARXD007GLEH	ARXD009GLEH	ARXD012GLEH	ARXD014GLEH	ARXD018GLEH	ARXD024GLEH									
	Compact Floor		AGHA004GCEH	AGHA007GCEH	AGHA009GCEH	AGHA012GCEH	AGHA014GCEH											
	Compact Floor (EEV external)		AGHE004GCEH	AGHE007GCEH	AGHE009GCEH	AGHE012GCEH	AGHE014GCEH	With this model, connection of EV kit is necessary.										
Ceiling	Ceiling					ABHA012GTEH	ABHA014GTEH	ABHA018GTEH	ABHA024GTEH	ABHA030GTEH		ABHA036GTEH	ABHA045GTEH	ABHA054GTEH				
Wall Mounted	Wall Mounted		ASHA004GTEH	ASHA007GTEH	ASHA009GTEH	ASHA012GCEH	ASHA014GCEH	ASHA18GBCH	ASHA24GBCH	ASHA030GTEH	ASHA034GTEH							
	Wall Mounted (EEV external)		ASHE004GTEH	ASHE007GTEH	ASHE009GTEH	ASHE012GCEH	ASHE014GCEH	With this model, connection of EV kit is necessary.										

\*1: ARXC60/072/090/096G cannot be connected to J-IIS series and J-III series.
\*2: Large airflow duct (Large type ARXN\*\*GATH) type can be connected to VR-II / V-III series only.
\*3: ARXD04GALH cannot be connected to J-IIIL series.
\*4: AUXN009/012/014GLAH and ARXN009/012/014GLBH can be connected to J-IIS series and J-III series only.
Specifications and design are subject to change without notice.

**3D Flow Cassette** NEW

Models AUXS018GLEH AUXS024GLEH





#### Feature

### 3 Air Outlet Ports can be controlled individually

Using the "Comfortable airflow setting" function allows the left and right air outlet ports and the wide center air outlet ports to automatically create a comfortable space for improved comfort.

#### Temperature distribution during cooling and heating (when set to comfortable airflow)



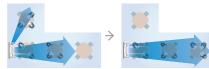
Coolina When cooling operation is stable with an outside air temperature of 35°C, a set temperature of 10°C and an air volume set to "Hi" in a 40m<sup>2</sup> environmental our test room for the AUXS024GLEH



Heating When heating operation is stable with an outside air temperature of  $7^{\circ}$ C, a set temperature of  $30^{\circ}$ C and an air volume set to "Hi" in a 40m<sup>2</sup> env ental our test room for the AUXS024GLEH

### Individual airflow setting

Equipped with an "Individual airflow setting" function that optimizes the airflow setting in accordance with the installation location.



Suitably setting the side air outlet ports to match how the space is used achieves air conditioning with no waste.



Wired Remote Controller (Touch Panel) UTY-RNRGZ3

Individual air outlet port control 'Individual airflow setting" is possible using the Wired Remote Controller (Touch Panel)\*. The airflow of the respective air outlet ports can be individually set.

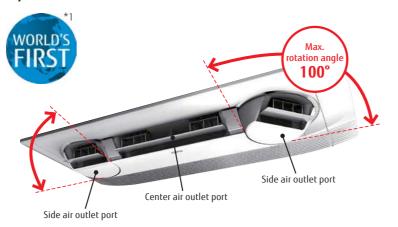
\*Wired Remote Controller (Touch Panel) UTY-RNRGZ3 only

Optimum airflow control

for improved comfort is

achieved even for long

rooms



\*1: Announced 2018. In room air conditioner for the home (our company's investigation)

### Individual airflow setting

Equipped with an "Individual airflow setting" function that optimizes the airflow setting in accordance with the installation location.



### **Optional parts**

Wireless LAN Interface: UTY-TFSXZ1 UTY-TRHX IR Receiver Unit: Cassette Grille: UTG-USGA-W External Power Supply Unit: UTZ-GXXA



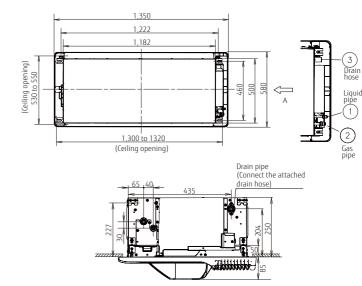
#### **Specifications**

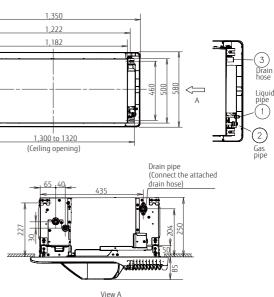
Model name			AUXS018GLEH	AUXS024GLEH
Power source			Single - phase,	~230V, 50Hz
( it	Cooling	kW	5.60	7.10
Capacity	Heating	KVV	6.30	8.00
Input power		W	20/28	34/43
	High		750 / 870	950 / 1,040
	Med-H		710 / 830	890 / 990
Airflow rate*	Med	m³/h	690 / 780	860 / 930
AIIIIOW Iate"	Med-L	111-7/11	660 / 740	810 / 880
	Low		630 / 700	770 / 840
	Quiet		540 / 540	540 / 540
	High		38 / 41	43 / 46
	Med-H		36 / 40	42 / 45
Sound pressure leve*	Med	dB	35 / 39	41 / 43
leve*	Med-L	(A)	35 / 37	40 / 42
	Low		33 / 36	38 / 40
	Quiet		29 / 29	29 / 29
Dimensions (H ×	W × D)	mm	200 × 1,240 × 500	200 × 1,240 × 500
Weight		kg	25 (55)	25 (55)
Connection	Liquid (Flare)		6.35	9.52
pipe diameter	Gas (Flare)	mm	12.70	15.88
Drain hose diam	eter (I.D./0.D.)		257	32
	Model nar	ne	UTG-US	GA-W
Cassette Grille	Dimensions (H×W×D)	mm	85 × 1,35	0 × 580
	Weight	kg	11.5 (	25)

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

#### Dimensions (Unit: mm)







\*: This value is "cooling operation / heating operation".

# **Compact Cassette** (Grid type)

#### Models

AUXB004GLEH AUXB007GLEH AUXB009GLEH AUXB012GLEH AUXB014GLEH AUXB018GLEH AUXB024GLEH

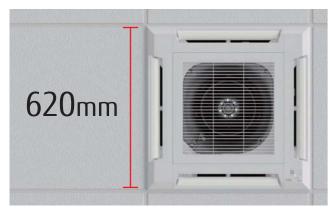




DC FAN

### Compact and stylish panel design

Compact and stylish panel design fits the grid type ceiling. It is a linear design suitable for grid shape of 620mm × 620mm grid ceiling.



### Easy maintenance

Maintenance is easier by removing the ceiling panel next to the grill, maintenance can be done, and new installation of inspection hole is unnecessary, so construction costs can be suppressed.



The air inlet grill can be installed in various directions, so maintenance is easy.

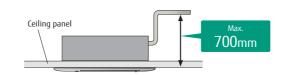


### Flexible installation

It is suitable for ceiling of grid type and it has high degree of freedom of installation and it can be installed beside lighting and ventilation opening.



#### Flexible installation



### High ceiling mode

The compact cassette can be installed up to a height of 3.0m (012/014/018/024).

Model code	The maximum height f	rom floor to ceiling (m)
Model code	Standard mode	High ceiling mode
004	2.7	-
007	2.7	-
009	2.7	-
012	2.7	3.0
014	2.7	3.0
018	2.7	3.0
024	2.7	3.0

#### **Optional parts**

Air Outlet Shutter Plate: UTR-YDZB Flesh Air Intake Kit: UTZ-VXAA Insulation Kit for High Humidity: UTZ-KXGC Casette Grille: UTG-UFGC-W, UTG-UFGE-W External Power Supply Unit : UTZ-GXXA

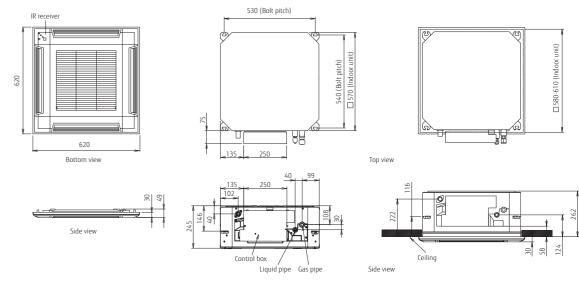


#### **Specifications**

Model name			AUXB004GLEH	AUXB007GLEH	AUXB009GLEH	AUXB012GLEH	AUXB014GLEH	AUXB018GLEH	AUXB024GLEH
Power source					Si	ngle - phase, ~230V, 50	Hz		
(it	Cooling	kW	1.1	2.2	2.8	3.6	4.5	5.6	7.1
Capacity	Heating	KW	1.3	2.8	3.2	4.1	5.0	6.3	8.0
Input power		W	23	25	25	29	35	36	84
	High		530/530	540	550	600	680	710	1,030
	Med-H		490/480	500	520	560	620	660	910
Airflow rate	Med	m³/h	450/430	460	480	520	560	590	790
AIIIIOWIate	Med-L	1112/11	420/380	420	440	480	500	520	680
	Low		390/340	390	400	430	440	460	560
	Quiet		350/300	350	350	390	390	400	450
	High		34/34	34	35	37	38	41	50
	Med-H		32/31	32	33	34	37	39	46
Sound pressure	Med	dB	30/29	30	31	33	34	36	43
level	Med-L	(A)	28/26	28	29	31	32	33	39
	Low		27/24	27	27	29	30	30	35
	Quiet		25/21	25	25	27	27	27	30
Dimensions (H ×	W × D)	mm	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570
Weight		kg	15	15	15	15	15	17	17
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	6.35	6.35	9.52
pipe diameter	Gas (Flare)	mm	9.52	9.52	9.52	12.70	12.70	12.70	15.88
onnection Liq	eter (I.D./O.D.)					25/32			
	Model na	me			U.	TG-UFGE-W / UTG-UFGC	-W		
Cassette Grille	Dimensions (H×W×D)	mm			49 ×	< 620 × 620 / 49 × 700 ×	700		
	Weight	kg				2.3/2.6			

Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

#### Dimensions (Unit: mm)



# **Circular Flow Cassette**

Models (Slim type) AUXN009GLAH AUXN012GLAH AUXN014GLAH AUXM018GLEH AUXM024GLEH AUXM030GLEH Models (Large type) AUXK018GLEH AUXK024GLEH AUXK030GLEH AUXK034GLEH AUXK036GLEH AUXK045GLEH AUXK054GLEH

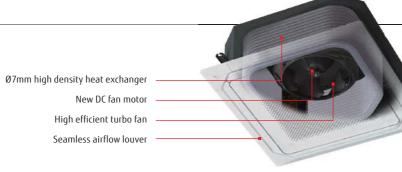




#### Feature

### Unique Circular Flow design

New Cassette type realizes Circular Flow to blow large airflow in 360° direction by mounting high performance DC fan motor, new turbo fan and unique seamless airflow louver design.



### Uniform temperature air conditioning

Achieve a comfortable air conditioning spread to every corner of the room by circular flow & wide vertical airflow.



Each louver can be set individually by Touch Panel Wired Remote Controller to enjoy the comfort of different directional airflows according to various room layouts. \* Touch Panel Wired RC (UTY-RNRGZ3) only



Comfortable air conditioning by preventing direct blowing of cold air and by providing swinging air flow simultaneously



Efficient air conditioning based on the room layout

### Human sensor increases more energy saving

Human sensor (Option)

Comfortable!

2 modes can be selected

Auto saving

people are away.

Auto OFF

people go out.

Operation stops after

Power is saved while

Energy saving operation starts automatically by detecting the motion of a person. 2 modes of save operation mode and stop mode can be selected. \*Touch Panel Wired RC (UTY-RNRGZ3) only

#### **Optional parts**

Human Sensor Kit: UTY-SHZXC Wide Panel: UTG-AKXA-W Panel Spacer: UTG-BKXA-W Fresh Air Intake Kit: UTZ-VXRA Air Outlet Shutter Plate: UTR-YDZK Insulation Kit for High Humidity: UTZ-KXRA UTG-UKGC-W, UTG-UKGA-B Casette Grille: External Power Supply Unit : UTZ-GXXA



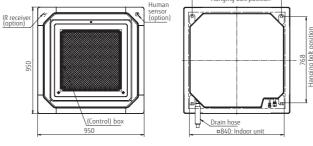
#### **Specifications**

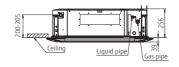
Model name			AUXN009 GLAH	AUXN012 GLAH	AUXN014 GLAH	AUXM018 GLEH	AUXM024 GLEH	AUXM030 GLEH	AUXK018 GLEH	AUXK024 GLEH	AUXK030 GLEH	AUXK034 GLEH	AUXK036 GLEH	AUXK045 GLEH	AUXK054 GLEH
Power source								Single -	phase, ~230	V, 50Hz					
Capacity	Cooling	kW	2.8	3.6	4.5	5.6	7.1	9.0	5.6	7.1	9.0	10.0	11.2	12.5	14.0
Capacity	Heating	KVV	3.2	4.0	5.0	6.3	8.0	10.0	6.3	8.0	10.0	11.2	12.5	14.0	16.0
Input power		W	20	20	20	20	25	49	40	40	47	47	61	89	116
	High		1,050	1,050	1,050	1,050	1,120	1,470	1,420	1,420	1,440	1,440	1,620	1,820	2,040
	Med-Hi		930	930	930	930	1,050	1,160	1,360	1,360	1,440	1,440	1,500	1,590	1,800
Airflow rate	Med	m³/h	900	900	900	900	930	1,070	1,300	1,300	1,340	1,340	1,400	1,500	1,590
AIIIIOWIate	Lo-Hi	111-7/11	870	870	870	870	900	930	1,270	1,270	1,300	1,300	1,340	1,400	1,440
	Low		810	810	810	810	870	900	1,200	1,200	1,280	1,280	1,280	1,300	1,300
	Quiet		780	780	780	780	780	780	1,150	1,150	1,150	1,150	1,150	1,150	1,150
	High		33	33	33	33	35	40	38	38	39	39	41	44	47
	Med-Hi		32	32	32	32	33	36	37	37	38	38	40	42	45
Sound pressure	Med	dB	31	31	31	31	32	34	36	36	37	37	38	40	42
level	Lo-Hi	(A)	30	30	30	30	31	32	35	35	36	36	37	38	39
	Low		29	29	29	29	30	31	34	34	35	35	36	36	36
	Quiet		28	28	28	28	28	28	33	33	33	33	33	33	33
Dimensions (H ×	W × D)	mm						2	46×840×84	0					
Weight		kg	24.5	24.5	24.5	24.0	24.5	24.5	26.5	26.5	29.5	29.5	29.5	29.5	29.5
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	9.52	9.52	6.35	9.52	9.52	9.52	9.52	9.52	9.52
pipe diameter	Gas (Flare)	mm	12.70	12.70	12.70	12.70	15.88	15.88	12.70	15.88	15.88	15.88	15.88	15.88	15.88
Drain hose diam	eter (I.D./O.D.)								25/32						
	Model na	me						UTG-UK	GC-W / UTG-	UKGA-B					
Cassette Grille	Dimensions (H×W×D)	mm							53×950×950	)					
	Weight	kg							6.0						

Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 2° CDB / (15° CWB), and outdoor temperature of 7° CDB / 6° CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

#### Dimensions (Unit: mm)

Models: AUXN009 / AUXN012 / AUXN014 AUXM018 / AUXM024 / AUXM030 Hanging bolt position

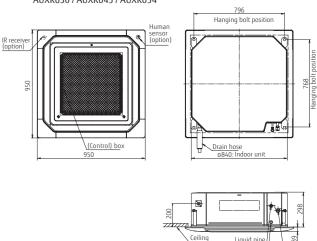




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When AUX\*018GLEH is connected to the outdoor unit other than J-IIIL, pipe diameter should be Ø9.52/015.88 (Liq/Gas) When AUXK036GLEH, AUXK045GLEH, and AUXK054GLEH are connected to the outdoor unit

other than J-IIIL, gas pipe diameter should be Ø19.05.



#### Models: AUXK018 / AUXK024 / AUXK030 / AUXK034 AUXK036 / AUXK045 / AUXK054

# Mini Duct

Models (With drain pump) ARXK004GLEH ARXK007GLEH ARXK009GLEH ARXK012GLEH ARXK014GLEH ARXK018GLEH ARXK024GLEH





ARXK004 ARXK007 ARXK009 ARXK012 ARXK014





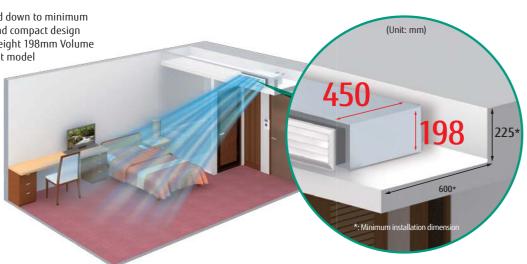


ARXK024

### Feature

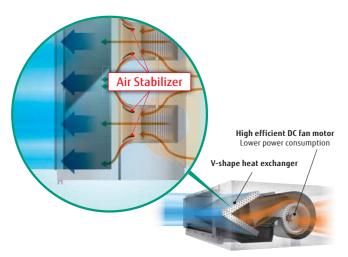
### Large living space available

- Installation space can be reduced down to minimum depth 450mm height 198 mm and compact design • Minimum size: Depth 450mm, Height 198mm Volume
- 30% down compared with current model
- Lightweight: 16kg 10%down



### Optimum airflow path and low noise operation

Low noise is realized drastically by stabilized airflow design



### Easy design and maintenance for drain

By using the DC fan motor, it is possible to change the static pressure range from 0 to 50 Pa\*.

The change of static pressure range is possible by remote controller. \*: 0 to 30 Pa. (004-012 models)

Built-in drain pump as standard : Maintenance is easy



6-speed control\*

Multistep airflow speed control allows this model to install in a quiet location.





tible Remote Co oller is as follow: UTY-RNRGZ3 / UTY-RLRG / UTY-RSRG / UTY-RHRG / UTY-DCGGZ1 / UTY-DTGGZ1 / UTY-ALGXZ1 / UTY-APGXZ1

#### **Specifications**

Model name			ARXK004GLEH	ARXK007GLEH	ARXK009GLEH	ARXK012GLEH	ARXK014GLEH	ARXK018GLEH	ARXK024GLEH
Power source					Sir	1gle - phase, ~230V, 50	Hz		
Capacity	Cooling	kW	1.1	2.2	2.8	3.6	4.5	5.6	7.1
Capacity	Heating	KVV	1.3	2.8	3.2	4.0	5.0	6.3	8.0
Input power		W	26	28	28	35	66	73	80
	High		460	460	460	550	760	930	1,160
	Med-H	1	440	-	-	-	-	-	-
Airflow rate	Med		420	420	420	480	560	740	960
AIIIIOW Iate	Med-L		400	-	-	-	-	-	-
	Low	1	370	370	370	410	410	540	750
	Quiet	]	340	-	-	-	-	-	-
Static pressure r	ange	- Pa	0 to 30	0 to 30	0 to 30	0 to 30	0 to 50	0 to 50	0 to 50
Standard static p	oressure	Pd	10	10	10	10	15	15	15
	High		25	26	26	29	34	33	32
	Med-H		24	25	25	27	31	30	30
Sound pressure	Med	dB	23	24	24	26	28	28	28
level	Med-L	(A)	22	23	23	25	26	26	27
	Low		21	22	22	24	24	24	25
	Quiet		20	21	21	22	22	22	22
Dimensions (H ×	W × D)	mm	198 × 700 × 450	198 × 700 × 450	198 × 700 × 450	198 × 700 × 450	198 × 700 × 450	198 × 900 × 450	198 × 1,100 × 450
Weight		kg	14.5	15.5	15.5	16	16	19	22.5
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	6.35	6.35	9.52
pipe diameter	Gas (Flare)	mm	9.52	9.52	9.52	12.70	12.70	12.70	15.88
Drain hose diam	eter (I.D./O.D.)	]				25/32			

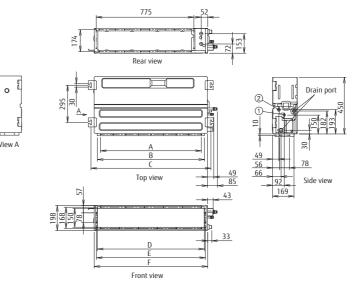
Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

#### Dimensions (Unit: mm)

3 (Drain hose)



### Auto Louver Grille Kit (Option)

UTY-XSZX

- Thin design provides a comfortable living environment over a wide area.
- Automatic louver grille provides comfortable air conditioning all the way down to the floor and matches the interior design well. (Optional)



#### **Optional parts**

Remote Sensor Unit : IR Receiver Unit : Auto Louver Grille Kit :

UTB-YWC UTD-GXTA-W (for ARXK004/007/009/012/014) UTD-GXTB-W (for ARXK018) UTD-GXTC-W (for ARXK024)

External Power Supply Unit : UTZ-GXXA

 ${old D}$  Refrigerant pipe flare connection (Liquid) ② Refrigerant pipe flare connection (Gas) ③ Drain hose connection

	ARXK004-014	ARXK018	ARXK024
A	P100×6=600	P100×8=800	P100×10=1000
В	650	850	1050
С	752	952	1152
D	650	850	1050
E	665	864	1064
F	700	900	1100

# Slim Duct / Slim Concealed Floor

Models (With drain pump) ARXD04GALH ARXD007GLEH ARXD009GLEH ARXD012GLEH ARXD014GLEH ARXD018GLEH ARXD024GLEH

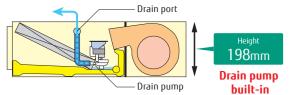


#### Feature

DC FAN

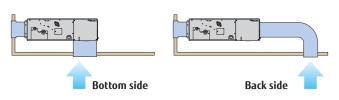
### Slim design

With a slim indoor design, this indoor can be installed in narrow ceiling spaces.



### Air-intake

Air intake direction can be selected to match the installation site.

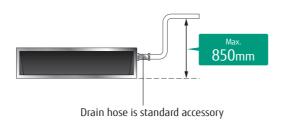


### Selectable with a wide range of static pressure

By using DC fan motor, it is possible to change of static pressure range 0 to 90Pa. The change of static pressure range is possible by remote controller.

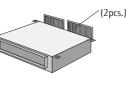


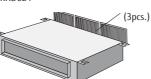
### High lift drain pump



### Filter (Accessory)

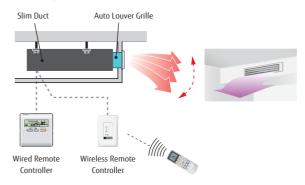
ARXD04 / 007 / 009 / 12 / 014 / 018 ARXD024





### Auto Louver Grille Kit (Option)

Simple flat Auto Louver will provide comfort airflow and harmonize with luxury interior.



#### **Specifications**

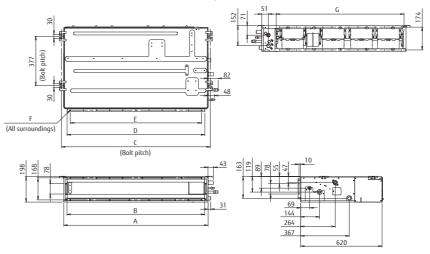
Model name			ARXD04GALH	ARXD007GLEH	ARXD009GLEH	ARXD012GLEH	ARXD014GLEH	ARXD018GLEH	ARXD024GLEH
Power source					Sir	ngle - phase, ~230V, 50	Hz		<u>.</u>
Capacity	Cooling	kW	1.1	2.2	2.8	3.6	4.5	5.6	7.1
Capacity	Heating	KVV	1.3	2.8	3.2	4.0	5.0	6.3	8.0
Input power		W	38	44	50	54	92	83	122
	High		510	550	600	600	800	940	1,330
	Med-H		-	480	510	530	680	820	1,140
Airflow rate	Med	 m <sup>3</sup> /h	400/470*1	440	460	490	600	730	1,020
AIIIIOW Iate	Med-L	-/	-	410	420	450	520	630	900
	Low		320/440*1	370	370	410	440	540	780
	Quiet		-	320	320	340	340	470	610
Static pressure r	ange	Pa	0 to 90	0 to 90	0 to 90	0 to 90	0 to 90	0 to 90	0 to 50
Standard static p	oressure	Pd	25	25	25	25	25	25	25
	High		26	28	29	30	34	34	35
	Med-H		-	26	27	28	32	31	31
Sound pressure	Med	dB	21/25* <sup>1</sup>	25	25	27	30	29	29
level	Med-L	(A)	-	24	24	26	28	27	27
	Low		20/22*1	22	22	24	25	25	24
	Quiet		-	21	21	22	22	23	21
Dimensions (H ×	W × D)	mm	198 × 700 × 620	198 × 700 × 620	198 × 700 × 620	198 × 700 × 620	198 × 700 × 620	198 × 900 × 620	198 × 1,100 × 620
Weight		kg	17	17	17	18	18	22	26
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	6.35	6.35	9.52
pipe diameter	Gas (Flare)	mm	12.70	9.52	9.52	12.70	12.70	12.70	15.88
Drain hose diam	eter (I.D./O.D.)					25 / 32			

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

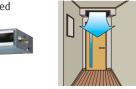
#### Dimensions (Unit: mm)

\*Service accessibility must be allowed for when installing the product. Please consult the installation manual for the necessary service access size.



**Flexible installation** Ceiling concealed





Floor concealed





#### **Optional parts**

Remote Sensor Unit : UTY-XSZX UTB-YWC IR Receiver Unit : Auto Louver Grille Kit UTD-GXTA-W (for ARXD04/007/009/012/014) UTD-GXTB-W (for ARXD018) UTD-GXTC-W (for ARXD024) External Power Supply Unit : UTZ-GXXA

\*1: This value is under cooling operation.

	ARXD04-014	ARXD018	ARXD024
A	700	900	1100
В	650	850	1050
С	734	934	1134
D	650	850	1050
Ε	P100x6=600	P100x8=800	P100x10=1000
F	18xØ5	22xØ5	26xØ5
G	574	774	974

# Medium Static Pressure Duct

Models ARXA024GLEH ARXA030GLEH ARXA036GLEH

ARXA045GLEH

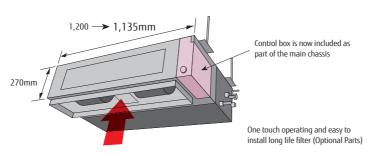




#### Feature

### Slim & Compact design

The slim and compact design of the indoor unit, with the control box mounted on the side of the unit, allows installation in narrow spaces.



#### Low energy consumption by high efficiency DC fan motor

Improved motor efficiency from previous model.



030 / 036 / 045 model

### Can be installed for various location

It can be installed in such locations as high-rise condominiums by low static pressure design.

It can also be installed in wide spade when high static pressure is required, such as for offices.





Static pressure range

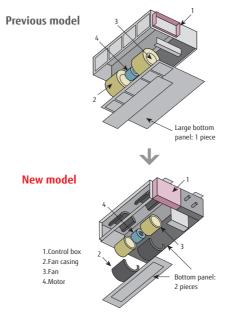
0 to 150 Pa

### Selectable with a wide range of static pressure

It is possible to change of static pressure range 0 to 150Pa.

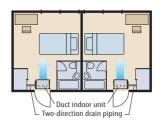
### Easy maintenance

See below for the case of rear suction type



Structural improvement is attained by making the bottom panel two pieces, front and rear. The internal fan casing is also manufactured in two pieces, namely upper and lower. The maintenance of the motor and fan can be easily carried out by removing the rear panel and the lower part of the casing while leaving the main chassis installed.

**Two-direction** drain piping



### Easy setting by using remote controller

The change of static pressure range is possible by remote controller



#### **Specifications**

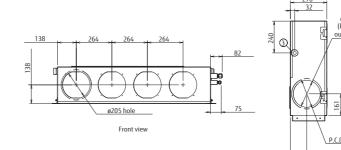
Model name			ARXA024GLEH	ARXA030GLEH	ARXA036GLEH	ARXA045GLEH			
Power source			· ·	Single - pha	se, ~230V, 50Hz				
(	Cooling	kW	7.1	9.0	11.2	12.5			
Capacity	Heating	KVV	8.0	10.0	12.5	14.0			
Input power		W	94	108	194	240			
	High		1,280	1,410	1,840	1,970			
	Med-H		1,180	1,350	1,750	1,910			
Airflow rate	Med	 m <sup>3</sup> /h	1,090	1,280	1,660	1,860			
	Med-L	111-711	1,000	1,240	1,600	1,780			
	Low		920	1,190	1,530	1,710			
	Quiet		840	1,150	1,470	1,640			
Static pressure range		Pa	0 to 150	0 to 150	0 to 150	0 to 150			
Standard static p	ressure	Pd	40	50	50	60			
	High		31	34	37	41			
	Med-H		29	33	36	40			
Sound pressure	Med	dB	27	32	35	38			
level	Med-L	(A)	26	31	35	38			
	Low		24	30	34	37			
	Quiet		23	29	33	36			
Dimensions (H × W × D) mm		mm	270 × 1,135 × 700	270 × 1,135 × 700	270 × 1,135 × 700	270 × 1,135 × 700			
Weight kg		kg	36	40	40	40			
Connection	Liquid (Flare)		9.52	9.52	9.52	9.52			
pipe diameter	Gas (Flare)	mm	15.88	15.88	15.88	15.88			
Drain hose diam	eter (I.D./O.D.)			25/32					

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

#### Dimensions (Unit: mm)

\*Service accessibility must be allowed for when installing the product. Please consult the installation manual for the necessary service access size



Side view (L)

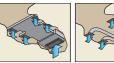
① Refrigerant piping flare connection (Liquid)

② Refrigerant piping flare connection (Gas) :

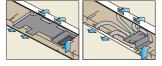
③ Drain piping connection (Drain pipe)

### Installation styles

Embedded in Ceiling

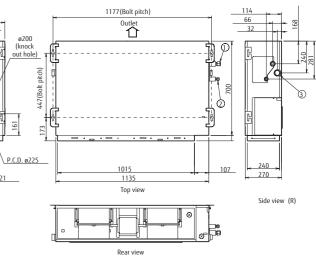






#### **Optional parts**

Remote Sensor Unit : UTY-XSZX Flange (Round) : UTD-RF204 Long Life Filter : UTD-LF25NA IR Receiver Unit : UTB-YWC Flange (Square) : UTD-SF045T Drain Pump Unit : UTZ-PX1NBA External Power Supply Unit : UTZ-GXXA



# **High Static Pressure Duct**

Models ARXC036GTEH ARXC45GATH ARXC60GATH

Models **Models** ARXC072GTEH ARXC096GTEH ARXC090GTEH





ARXC036 ARXC45 ARXC60



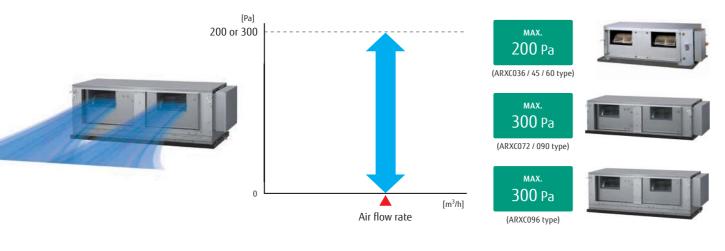


ARXC096

#### Feature

### Static pressure selection

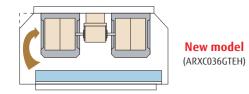
By using DC fan motor, it is possible to change static pressure range from 0 to 200Pa (ARXC036) / 300Pa (ARXC072 / 090 / 096).



#### Low noise

#### Models : ARXC036 / ARXC45 / ARXC60

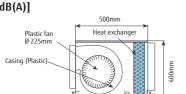
Cutting off the corners of the conventional indoor unit front panel and fan casing, has enabled less turbulent air flow. Low noise is realized by adopting a plastic case and a plastic fan.



#### ARXC036GTEH : Plastic fan [42dB(A)]

\* Model : Material (At 100Pa : Actual noise measurement value)

96



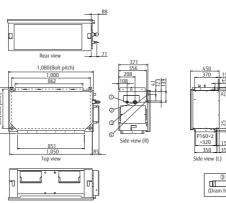
### Low energy consumption by high efficiency DC fan motor

Improved motor efficiency from previous model.



(ARXC036 type)

(ARXC072 / 090 / 096 type)



 Refrigerant piping flare connection (Liquid) ② Refrigerant piping flare connection (Gas) 3 Drain piping connection

 Refrigerant pipe flare connection (Liquid) ② Refrigerant pipe flare connection (Gas) ③ Drain hose

### Easy installation (Compact size & Lightweight)

A compact size and lightweight indoor unit has been developed by reducing the basic chassis and the overall material weight.



(ARXC036 / 45 / 60 type)

### **Specifications**

Model name			ARXC036GTEH	ARXC45GATH	ARXC60GATH*	ARXC072GTEH*	ARXC090GTEH*	ARXC096GTEH*
Power source					Single - phase	e, ~230V, 50Hz		
Constanting (	Cooling	kW	11.2	12.5	18.0	22.4	25.0	28.0
Capacity	Heating	KW	12.5	14.0	20.0	25.0	28.0	31.5
Input power		W	207	715	730	681	819	838
	High		1,990	3,000	3,350	3,900	4,300	4,850
	Med-H	1	1,810	-	-	3,600	4,150	4,550
Airflow rate	Med	 m <sup>3</sup> /h	1,680	2,700	2,850	3,300	4,000	4,250
	Med-L	111-711	1,500	-	-	3,150	3,750	3,920
	Low	]	1,330	2,300	2,550	3,000	3,500	3,600
	Quiet		1,160	-	-	2,850	3,250	3,280
Static pressure range		- Pa	0 to 200	100 to 250	100 to 250	0 to 300	0 to 300	0 to 300
standard static p	ressure	Pd	100	100	100	150	150	150
	High		42	47	48	47	48	48
	Med-H		39	-	-	45	47	46
ound pressure	Med	dB	36	43	44	43	46	45
evel	Med-L	(A)	34	-	-	41	45	43
	Low		32	40	41	40	44	42
	Quiet		30	-	-	38	42	40
Dimensions (H × W × D) mm		mm	400 × 1,050 × 500	400 × 1,050 × 500	400 × 1,050 × 500	450 × 1,587 × 700	450 × 1,587 × 700	550 × 1,587 × 700
Weight		kg	40	46	46	84	84	105
Connection	Liquid		9.52 (Flare)	9.52 (Flare)	9.52 (Flare)	9.52(Flare)	9.52(Flare)	9.52 (Brazing)
pipe diameter	Gas	mm	15.88 (Flare)	19.05 (Flare)	19.05 (Flare)	19.05(Flare)	19.05(Flare)	22.22 (Brazing)
rain hose diam	Drain hose diameter (I.D./O.D.)				25	/ 32		

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

#### Dimensions (Unit: mm)

. .

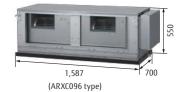
295 Side view

Models: ARXC036 / ARXC45 / ARXC60



(Unit:mm)



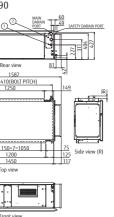


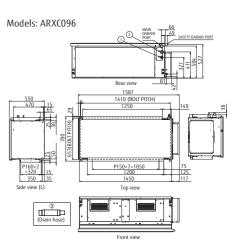
(ARXC072 / 090 type)

#### **Optional parts**

Long-Life Filter : UTD-LF60KA (For ARXC036 / 45 / 60) UTB-YWC IR Receiver Unit : UTY-XSZX Remote Sensor Unit : External Power Supply Unit : UTZ-GXXA

\*: ARXC60/072/090/096G cannot be connected to J-III series.





 Refrigerant pipe flare connection (Liquid) ② Refrigerant pipe flare connection (Gas) ③ Drain hose

Models

# Large Airflow Duct (Compact type)

Models ARXN012GLBH ARXN014GLBH

Models ARXN009GLBH ARXN018GLBH ARXN024GTBH ARXN030GTBH





ARXN009 ARXN012 ARXN014





ARXN024 ARXN030



#### Feature

### Large airflow volume

It can be installed in places such as early replacement of air required by large airflow volume.



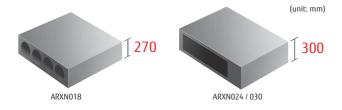
### Quiet operation

Multistep airflow speed control allows this model to install in a quiet location.



### Slim & Compact design

It can be installed in places such as early replacement of air required by large airflow volume.





Low noise

26 dB(A)

at 024/030 models



Optional parts	
IR receiver unit:	UTB-YWC
Long life filter:	UTD-LF25NA(For ARXN018GLBH),
	UTD-LFNA(For ARXN024/030GTBH)
Flange:	UTD-SF045T(For ARXN018GLBH),
-	UTD-RF204(For ARXN018GLBH)
Drain pump unit:	UTZ-PX1NBA(ARXN018GLBH)
Remote sensor unit:	UTY-XSZX
Auto Louver Grille Kit:	UTD-GXTC-W (for ARXN009/012/014GLBH)



Model name			ARXN009GLBH	ARXN012GLBH	ARXN014GLBH	ARXN018GLBH	ARXN024GTBH	ARXN030GTBH						
Power source			71101100902011	7404101202011		e, ~230V, 50Hz	7110111021101011	7404105001011						
	Cooling		2.8	3.6	4.5	5.6	7.1	9.0						
Capacity	Heating	kW	3.2	4.0	5.0	6.3	8.0	10.0						
nput power		W	88	122	122	173	180	273						
	High		1,100	1,330	1,330	1,720	2,100	2,700						
	Med-H	1	-	-	-	-	2,050	2,390						
Airflow rate	Med		1,010	1,240	1,240	1,470	1,860	2,080						
	Med-L	- m <sup>3</sup> /h	-	-	-	-	1,660	1,770						
	Low	1	880	1,100	1,100	1,360	1,470	1,470						
	Quiet	1	-	-	-	-	1,260	1,260						
itatic pressure ra	ange	D-	0 to 50	0 to 50	0 to 50	0 to 80	0 to 100	0 to 100						
Standard static p	ressure	- Pa	25	25	25	50	50	50						
	High		32	35	35	36	37	41						
	Med-H		-	-	-	-	35	38						
ound pressure	Med	dB	30	32	32	33	33	34						
evel	Med-L	(A)	-	-	-	-	31	31						
	Low		28	29	29	30	28	28						
	Quiet		-	-	-	-	26	26						
Dimensions (H × W × D) n		mm	198 × 1,100 × 620	198 × 1,100 × 620	198 × 1,100 × 620	270 × 1,135 × 700	300 × 1,400 × 700	300 × 1,400 × 70						
Weight kg		kg	26	26	26	40	48	48						
onnection	nection Liquid (Flare)		6.35	6.35	6.35	6.35	9.52	9.52						
pipe diameter Gas (Flare) mr		mm	12.70	12.70	12.70	12.70	15.88	15.88						
Drain hose diam	eter (I.D./O.D.)				25	/ 32		25/32						

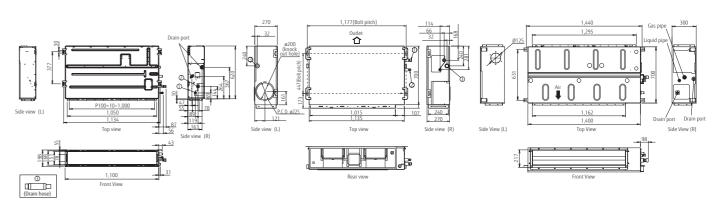
Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

#### Dimensions (Unit: mm)

Models: ARXN009 / ARXN012 / ARXN014

Models: ARXN018



 Refrigerant piping flare connection (Liquid)  ${}^{\textcircled{O}}$  Refrigerant piping flare connection (Gas) ③ Drain piping connection

 Refrigerant pipe flare connection (Liquid)  ${}^{\textcircled{O}}$  Refrigerant pipe flare connection (Gas) ③ Drain hose



# Large Airflow Duct (Large type)

Models ARXN18GATH ARXN24GATH ARXN30GATH ARXN34GATH ARXN36GATH

ARXN45GATH





#### Feature

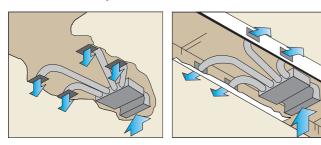
### Large airflow volume

It can be installed in places such as early replacement of air required by large airflow volume.





### Installation styles



Selectable with a wide range of static pressure



**Optional parts** Remote Sensor Unit : UTY-XSZX

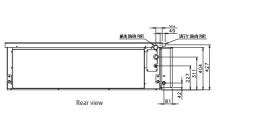


#### Specifications

Model name			ARXN18GATH	ARXN24GATH	ARXN30GATH	ARXN34GATH	ARXN36GATH	ARXN45GATH		
Power source					Single - phase	e, ~230V, 50Hz				
Cooling		1.11/	5.6	7.1	9.0	10.0	11.2	12.5		
Capacity	Heating	kW	6.3	8.0	10.0	11.2	12.5	14.0		
Input power		W	154	205	306	432	572	572		
	High		2,280	2,640	3,200	3,720	4,120	4,120		
Airflow rate	Med	m3/h	-	-	-	-	-	-		
	Low	1	-	-	-	-	-	_		
Static pressure range			50 to 100	50 to 150	50 to 250	50 to 250	50 to 300	50 to 300		
Standard static	pressure	- Pa	50	50	50	50	60	60		
	High		35	37	40	43	45	45		
Sound pressure level	Med	dB (A)	-	-	-	-	-	-		
ievei	Low	- (~)	-	-	-	-	-	-		
Dimensions (H >	W × D)	mm	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700		
Weight kg		84	84	84	84	84	84			
Connection Liquid (Flare)			9.52	9.52	9.52	9.52	9.52	9.52		
pipe diameter	Gas (Flare)	mm	15.88	15.88	15.88	15.88	19.05	19.05		
Drain hose diam	eter (I.D./O.D.)	1		25/32						

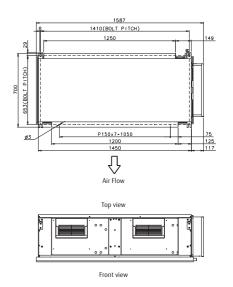
Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

Dimensions (Unit: mm)





Large Airflow Duct (Large type) can be connected to VR-II / V-III series only.





# Compact floor

Models (EEV internal) AGHA004GCEH AGHA007GCEH AGHA009GCEH AGHA012GCEH AGHA014GCEH

Models (EEV external) AGHE004GCEH AGHE007GCEH AGHE009GCEH AGHE012GCEH AGHE014GCEH

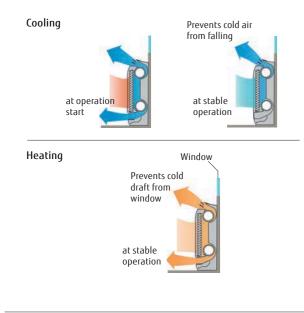




#### Feature

### 2-Fan & Wide airflow

Individual vertical airflow by 2-fan can control the whole room comfortably.



### Quiet operation

Quiet operation is realized by 6 fan speed control. (via 2 wire controller)



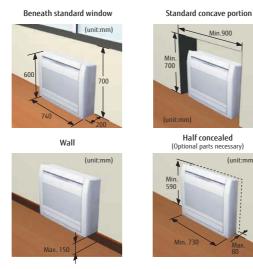
Low noise

22 dB(A)

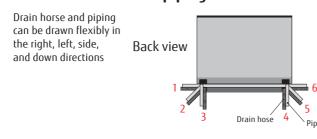
UTY-RNRGZ3 / UTY-RLRG / UTY-RSRG / UTY-RHRG / UTY-DCGGZ1 / UTY-DTGGZ1 / UTY-ALGXZ1 / UTY-APGXZ1

### Flexible & easy installation

Due to compact and whole surface suction method model, floor, concealed, half concealed, or wall mounted installation can be available to match the room layout.



### Flexible piping connection 6 direction of drain & piping



**Optional parts** Half concealed kit: UTR-STA External Power Supply Unit : UTZ-GXXA



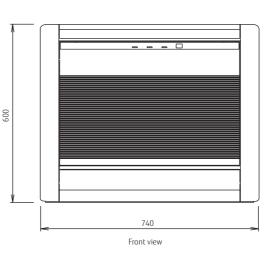
#### **Specifications**

Model name			AGHA004GCEH	AGHA007GCEH	AGHA009GCEH	AGHA012GCEH	AGHA014GCEH	AGHE004GCEH	AGHE007GCEH	AGHE009GCEH	AGHE012GCEH	AGHE014GCEH
Power source							Single - phase	e, ~230V, 50Hz				
Capacitu	Cooling	kW	1.1	2.2	2.8	3.6	4.0	1.1	2.2	2.8	3.6	4.0
Capacity	Heating	KVV	1.3	2.8	3.2	4.0	4.5	1.3	2.8	3.2	4.0	4.5
Input power		W	12 / 14	16	17	22	29	12 / 14	16	17	22	29
	High		380 / 430	470	500	590	670	380 / 430	470	500	590	670
	Med-H		350	420	450	520	590	350	420	450	520	590
Airflow rate	Med	m <sup>3</sup> /h	320	390	400	470	520	320	390	400	470	520
AIIIIOWIate	Med-L	111-711	310	360	360	420	450	310	360	360	420	450
	Low		280	330	330	390	390	280	330	330	390	390
	Quiet		210	270	270	340	340	210	270	270	340	340
	High		35 / 36	37	38	42	46	35 / 36	37	38	42	46
	Med-H		33	35	36	39	42	33	35	36	39	42
Sound pressure	Med	dB	31	33	34	37	39	31	33	34	37	39
level	Med-L	(A)	30	31	31	35	36	30	31	31	35	36
	Low		28	29	29	33	33	28	29	29	33	33
	Quiet		22	22	22	30	30	22	22	22	30	30
Dimensions (H ×	W × D)	mm	600×740×200	600×740×200	600×740×200	600×740×200	600×740×200	600×740×200	600×740×200	600×740×200	600×740×200	600×740×200
Weight		kg	15	15	15	15	15	14.5	14.5	14.5	14.5	14.5
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35
pipe diameter	Gas (Flare)	mm	9.52	9.52	9.52	12.70	12.70	9.52	9.52	9.5	12.70	12.70
Drain hose diam	eter (I.D./O.D.)						13.8 / 15	.8 to 16.7				
EV Kit (option)			-	-	-	-	-	UTR-EV09XB	UTR-EV09XB	UTR-EV09XB	UTR-EV14XB	UTR-EV14XB
Noto · Specificat			U							*0000000		

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

#### Dimensions (Unit: mm)



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When AGH\*004GCEH, AGH\*007GCEH, and AGH\*009GCEH are connected to the outdoor unit other than J-IIIL, gas pipe diameter should be Ø12.70.



Side view

# Floor / Ceiling

Models ABHA012GTEH ABHA014GTEH ABHA018GTEH ABHA024GTEH





#### Feature

DC FAN

### Flexible installation

### Example for floor installation

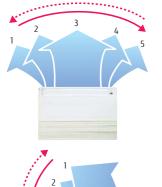
Floor console



### Double auto swing

A combination of up/down and right/left directional swing allows three-dimensional air direction control.

RIGHT and LEFT SWING



UP and DOWN SWING



#### Example for ceiling installation

Under ceiling



### High power DC fan motor

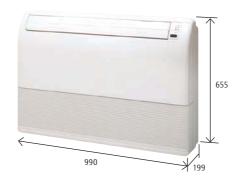
- High power
- Wide rotation range
- High efficiency



### Compact design

Symmetrical, slim and compact design.

(Unit:mm)

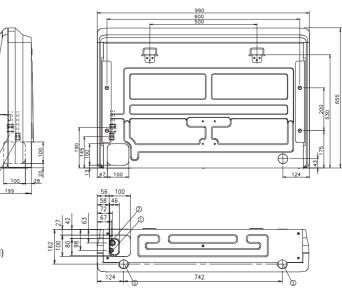


#### **Specifications**

Model name			ABHA012GTEH	ABHA014GTEH	ABHA018GTEH	ABHA024GTEH	
Power source				Single - pha	ise, ~230V, 50Hz		
Capacitu	Cooling	kW	3.6	4.5	5.6	7.1	
Capacity	Heating	KVV	4.0	5.0	6.3	8.0	
Input power		W	30	42	74	99	
	High		660	780	1,000	1,000	
	Med-H		620	740	910	930	
Airflow rate	Med	 m <sup>3</sup> /h	580	690	830	870	
AITTOWTALE	Med-L		550	640	750	800	
	Low		520	600	660	740	
	Quiet	]	490	550	580	680	
	High		36	40	46	47	
	Med-H	]	34	39	44	45	
Sound pressure	Med	dB	33	38	42	43	
level	Med-L	(A)	31	36	40	41	
	Low		29	35	37	39	
	Quiet		28	34	35	37	
Dimensions (H ×	W × D)	mm	199 × 990 × 655	199 × 990 × 655	199 × 990 × 655	199 × 990 × 655	
Weight		kg	25	26	26	27	
Connection	Liquid (Flare)		6.35	6.35	6.35	9.52	
pipe diameter	Gas (Flare)	mm	12.70	12.70	12.70	15.88	
Drain hose diameter (I.D./O.D.)			25/32				

Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

#### Dimensions (Unit: mm)



① Refrigerant piping flare connection (Liquid) ② Refrigerant piping flare connection (Gas) 3 Drain piping connection

### Auto-closing louver

When operation is stopped, the louvers will automatically close. (This function is available on all non-ducted models.)

### Super vane

Double Louver Super vane with newly developed special configuration boosts airflow sending cool air quickly to every corner of the room.

#### Optional parts

External Power Supply Unit : UTZ-GXXA

Ceiling

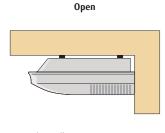
Models ABHA030GTEH ABHA036GTEH ABHA045GTEH ABHA054GTEH



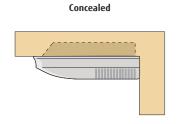


#### Feature

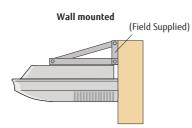
### Installation



General installation pattern which suspends the indoor unit from the ceiling.



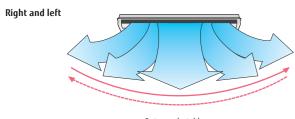
Installation pattern where part of the indoor unit is embedded into the ceiling.



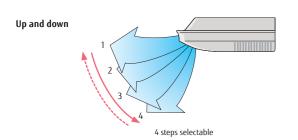
Installation which fixes the indoor unit to the wall by the use of wall brackets (Field supplied). This type of installation can be used when the ceiling space is insufficient.

### Double auto swing and wide airflow

Auto airflow direction and auto swing

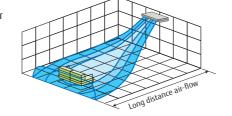


5 steps selectable



### Long airflow

#### Long Airflow ensures comfort to every corner of a large room.

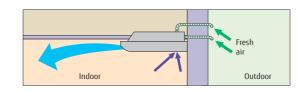


### High power DC fan motor

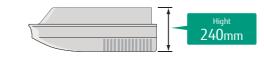
• High power • Wide rotation range • High efficiency



#### Fresh air intake



### Slim & Compact design



#### Specifications

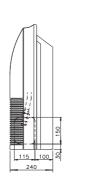
Model name			ABHA030GTEH	ABHA036GTEH	ABHA045GTEH	ABHA054GTEH		
Power source				Single - phas	se, ~230V, 50Hz			
(	Cooling	kW	9.0	11.2	12.5	14.0		
Capacity	Heating	- KVV	10.0	12.5	14.0	16.0		
Input power		W	66	85	131	180		
	High		1,630	1,690	2,010	2,270		
	Med-H	]	1,520	1,560	1,840	2,070		
Airflow rate	Med	- m <sup>3</sup> /h	1,420	1,450	1,690	1,860		
	Med-L		1,320	1,360	1,530	1,660		
	Low	]	1,220	1,270	1,380	1,470		
	Quiet	]	1,140	1,170	1,230	1,280		
	High		42	45	48	51		
	Med-H	]	40	41	46	49		
Sound pressure	Med	dB	39	39	45	46		
level	Med-L	(A)	37	38	41	43		
	Low	]	35	36	38	40		
	Quiet		33	34	35	36		
Dimensions (H ×	W × D)	mm	240 × 1,660 × 700	240 × 1,660 × 700	240 × 1,660 × 700	240 × 1,660 × 700		
Weight		kg	46	48	48	48		
Connection Liquid (Flare)			9.52	9.52	9.52	9.52		
pipe diameter	Gas (Flare)	mm	15.88	15.88	15.88	15.88		
Drain hose diameter (I.D./O.D.)			25/32					

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

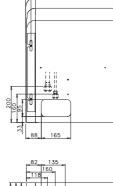
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

#### Dimensions (Unit: mm)





1 Refrigerant piping flare connection (Liquid) ② Refrigerant piping flare connection (Gas) ③ Drain piping connection

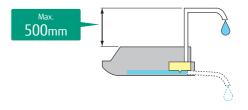


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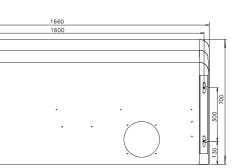
### High lift drain pump

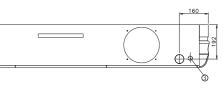
Optional drain pump unit allows flexible installation design.



#### **Optional parts**

Drain Pump Unit : UTR-DPB24T Flange : UTD-RF204 External Power Supply Unit : UTZ-GXXA





# Wall Mounted

Models (EEV internal) ASHA004GTEH ASHA007GTEH ASHA009GTEH Models (EEV external) ASHE004GTEH ASHE007GTEH ASHE009GTEH

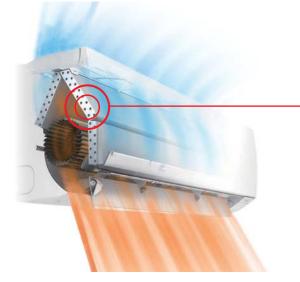




#### Feature

### High efficient compact design

Ø5mm high density heat exchanger is mounted for the first time in the industry.



High density heat exchanger



Making the tube thin:  $7 \text{ mm} \rightarrow 5 \text{ mm}$ Increase of heat exchanger volume by high density and adopting sub heat exchanger

6 Fan Speed Control	Fan speed
Multistep airflow control is possible	Quiet
to suit the environment.	Guice





\* Compatible Remote Controller is as follows: UTY-RNRG23 / UTY-RLRG / UTY-RSRG / UTY-RHRG / UTY-DCGGZ1 / UTY-DTGGZ1 / UTY-ALGXZ1 / UTY-APGXZ1

### Easy installation

Communication wiring can be installed easily by only opening the front panel and wire cover.



Optimized design matches to a small room

Efficient operation and refrigerant saving are realized by optimum heat exchanger design suited for small rooms.



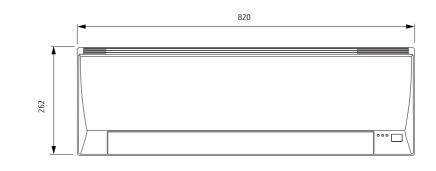
#### Specifications

Model name			ASHA004GTEH	ASHA007GTEH	ASHA009GTEH	ASHE004GTEH	ASHE007GTEH	ASHE009GTEH
Power source					Single - phas	e, ~230V, 50Hz		
Capacitu	Cooling	kW	1.1	2.2	2.8	1.1	2.2	2.8
Capacity	Heating	KVV	1.3	2.8	3.2	1.3	2.8	3.2
Input power		W	13	19	34	13	19	34
	High		430	550	720	430	550	720
	Med-H		420	460	570	420	460	570
A :- (]	Med	 m3/h	390	420	500	390	420	500
Airflow rate	Med-L	1 m <sup>5</sup> /n	380	390	410	380	390	410
	Low	]	360	360	360	360	360	360
	Quiet		330	330	330	330	330	330
	High		31	35	43	31	35	43
	Med-H	]	30	32	38	30	32	38
Sound pressure	Med	dB	28	30	34	28	30	34
level	Med-L	(A)	26	27	29	26	27	29
	Low	]	24	24	24	24	24	24
	Quiet		22	22	22	22	22	22
Dimensions (H ×	W × D)	mm	262×820×206	262×820×206	262×820×206	262×820×206	262×820×206	262×820×206
Weight		kg	7.5	7.5	7.5	7	7	7.5
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	6.35	6.35
oipe diameter	Gas (Flare)	mm	9.52	9.52	9.52	9.52	9.52	9.52
Drain hose diameter (I.D./O.D.)					13.8 / 15	5.8 to 16.7		
EV Kit (option)			-	-	-	UTR-EV09XB	UTR-EV09XB	UTR-EV09XB

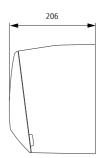
Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

Dimensions (Unit: mm)



When ASH\*004GTEH, ASH\*007GTEH, ASH\*009GTEH are connected to the outdoor unit other than J-IIIL, gas pipe diameter should be Ø12.70.



# Wall Mounted

Models (EEV internal) ASHA012GCEH ASHA014GCEH Models (EEV external) ASHE012GCEH ASHE014GCEH



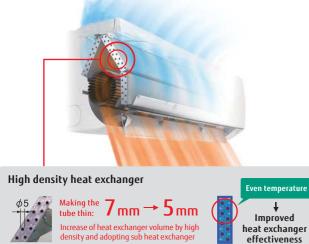


#### Feature

### High efficient compact design

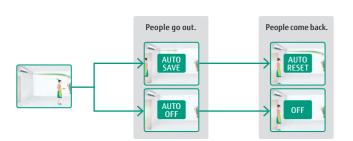
High efficient compact design is realized by mounting a high density and large heat exchanger.

Compact body makes it possible to install inconspicuously even in a meeting or office room and comfortable air conditioning is provided.



## Human sensor increases more energy saving

Energy saving operation starts automatically by detecting the motion of a person. 2 modes of save operation mode and stop mode can be selected.



### More comfort airflow

Comfortable air conditioning is provided by mounting our unique power diffuser.

#### Heating

Vertical airflow provides powerful floor level heating



Cooling

Horizontal airflow does not blow cool air directly at the occupants in the room.



**6 Fan Speed Control** Multistep airflow control is possible to suit the environment.



### 6-Step Speed

0

Human sensor



\* Compatible Remote Controller is as follows: UTY-RNRGZ3 / UTY-RLRG / UTY-RSRG / UTY-RHRG / UTY-DCGGZ1 / UTY-DTGGZ1 / UTY-ALGXZ1 / UTY-APGXZ1



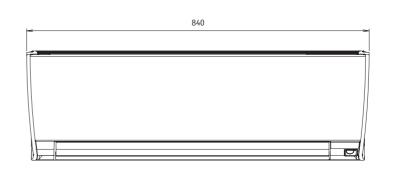
#### Specifications

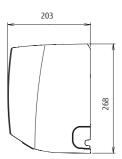
Model name			ASHA012GCEH	ASHA014GCEH	ASHE012GCEH	ASHE014GCEH		
Power source				Single - phase	e, ~230V, 50Hz			
Capacitu	Cooling	kW	3.6	4.0	3.6	4.0		
Capacity	Heating	KVV -	4.0	4.5	4.0	4.5		
Input power		W	25	36	25	36		
	High		690	800	690	800		
	Med-H		610	740	610	740		
Airflow rate	Med	m³/h	560	680	560	680		
	Med-L	111-7/11	530	610	530	610		
	Low		470	550	470	550		
	Quiet		330	330	330	330		
		High		40	44	40	44	
	Med-H		37	42	37	42		
Sound pressure	Med	dB	35	40	35	40		
level	Med-L	(A)	33	37	33	37		
	Low		30	34	30	34		
	Quiet		24	24	24	24		
Dimensions (H ×	W × D)	mm	268 × 840 × 203	268 × 840 × 203	268 × 840 × 203	268 × 840 × 203		
Weight		kg	8.5	8.5	8.5	8.5		
Connection Liquid (Fl			6.35	6.35	6.35	6.35		
pipe diameter	Gas (Flare)	mm	12.70	12.70	12.70	12.70		
Drain hose diam	eter (I.D./O.D.)			13.8 / 15.8 to 16.7				
EV Kit (option)			-	-	UTR-EV14XB	UTR-EV14XB		

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

Dimensions (Unit: mm)





# Wall Mounted

Models ASHA18GBCH ASHA24GBCH Models ASHA030GTEH ASHA034GTEH

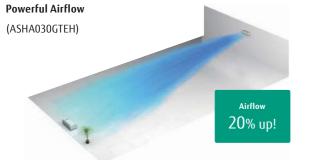




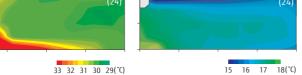
Feature

DC FAN

### Powerful & Comfort airflow



### Power diffuser (ASHA18/24GBCH) Vertical airflow (24)



### Human sensor (ASHA030/034GTEH only)

A human sensor senses the movement of humans to reduce operation when one is in the room. the wasteful consumption of energy is reduced automatically to keep down electricity bills. (Available to wired remote controller as UTY-RNRGZ3)





# Quiet operation & 6 Fan speed control

Drastic low noise is realized by new airflow structure. In addition, multistep quiet operation is available by 6-step sound level settings.



Current model New model (030/034class)

35dB(A)

-2 dB(A)

33dB(A)

\* Compatible Remote Controller is as follows: UTY-RNRGZ3 / UTY-RLRG / UTY-RSRG / UTY-RHRG / UTY-DCGGZ1 / UTY-DTGGZ1 / UTY-ALGX21 / UTY-APGX21



#### Specifications

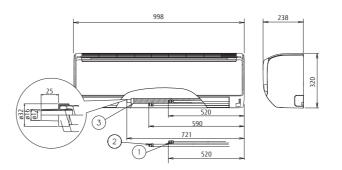
Model name			ASHA18GBCH	ASHA24GBCH	ASHA030GTEH	ASHA034GTEH
Power source			·	Single - phas	se, ~230V, 50Hz	
Power source Capacity Input power Airflow rate Sound pressure Input power High Med-H Med-L Low Quiet High Med-H Med-H Med-L Low	Cooling	kW	5.6	7.1	9.0	10.0
Capacity	Heating	KW	6.3	8.0	10.0	11.2
Input power		W	32	60	74	103
	High		840	1,100	1,440	1,620 / 1,520
	Med-H		-	-	1,200	1,300
A sellow so to	Med	m³/h	770	910	1,050	1,120
AIIIIOW Iale	Med-L	111-7/11	-	-	940	980
	Low		690	730	890	890
	Quiet		-	-	700	700
	High		41	48	53	55 / 54
	Med-H		-	-	49	51
Sound pressure	Med	dB	39	43	45	47
level	Med-L	(A)	-	-	42	43
	Low		35	35	39	39
	Quiet		-	-	33	33
Dimensions (H ×	W × D)	mm	320 × 998 × 238	320 × 998 × 238	340 x 1,150 x 280	340 x 1,150 x 280
Weight		kg	15	15	18	18
Connection	Liquid (Flare)		6.35	9.52	9.52	9.52
pipe diameter	Gas (Flare)	mm	12.70	15.88	15.88	15.88
Drain hose diam	eter (I.D./O.D.)		12 /	16	13.8 / 15.	8 to 16.7

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

### Dimensions (Unit: mm)

Models: ASHA18 / ASHA24



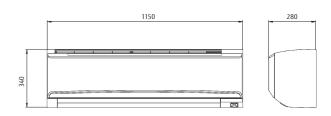
Refrigerant piping flare connection (Liquid)
 Refrigerant piping flare connection (Gas)

③ Drain piping connection

112

When ASHA18GBCH is connected to the outdoor unit other than J-IIIL, pipe diameter should be Ø9.52/Ø15.88 (Liq/Gas).

#### Models: ASHA030 / ASHA034



# VENTILATION

# Effective heat exchange and simultaneous fresh air ventilation

High Efficiency and low noise levels are achieved by using a highly efficient heat exchange process. A comfortable air conditioned space is achieved by conveniently selecting whether to use heat exchange or normal ventilation setting, according to the requirements of the conditioned space.

Energy Recovery Ventilator DX-Kit for air handling applications

### Energy Recovery Ventilator range

Airflow rate (m3/h)	250	350	500	800	1000
Model code	025	035	050	080	100
Energy Recovery Ventilator	UTZ-BD025C	UTZ-BD035C	UTZ-BD050C	UTZ-BD080C	UTZ-BD100C

# **Energy Recovery Ventilator**

Models UTZ-BD025C UTZ-BD035C UTZ-BD050C UTZ-BD080C UTZ-BD100C



UTZ-BD025C



UTZ-BD035C



UTZ-BD050C







UTZ-BD100C

Feature

### Heat exchange ventilation and normal ventilation

#### Heat exchange ventilation

When a room is cooled or heated, the exhausted cooling / heating energy is recovered by heat-exchange ventilation.

#### Normal ventilation

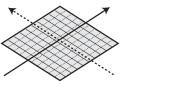
The operation is used during periods when the room space requires no cooling or heating effect, i.e. when there is minimal temperature difference between the indoor and outdoor environments.

### Energy efficiency and ecology

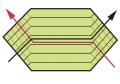
Energy consumption is dramatically reduced by using a counterflow heat-exchange element. Air conditioning load is reduced by approximately 20%, resulting in significant energy savings. Recovers up to 77% of the heat in the outgoing air.

### Features of heat exchange element

With the cross-flow element, air moves in a straight line across the element. With the counter-flow element , air flows through the element for a longer time (longer distance) ,so the heat-exchange effect improved.



Other element (Cross-flow element)



Energy saving

20%

Fujitsu element (Counter-flow element)

### Quiet operation

Significantly reducing low pressure loss and noise allows low-noise operation.

### Adopts a highly efficient counter-flow heat exchange element

UTZ-BD080C



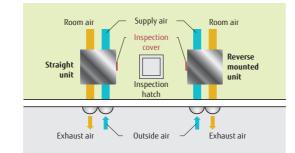
## Reverse mountable direct air supply / exhaust system

#### Adoption of straight air supply / exhaust system:

Duct design is simplified because the air supply / exhaust ducts are straight.

### Since each unit can be mounted in reverse position, only one inspection hole is needed for two units:

Two units can share one inspection hole so duct work is easier and more flexible.



### Slim shape and easier installation

Counter-flow heat exchange element used for reduced noise and slimmer, more compact body shape.

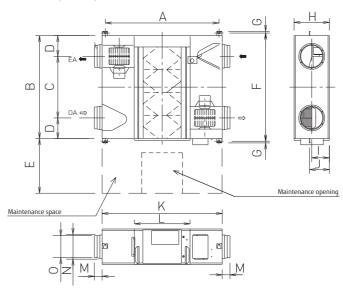


#### Specifications

Rated	flow rate			250 m <sup>3</sup> /h	350 m <sup>3</sup> /h	500 m <sup>3</sup> /h	800 m <sup>3</sup> /h	1000 m <sup>3</sup> /h
Model	name			UTZ-BD025C	UTZ-BD035C	UTZ-BD050C	UTZ-BD080C	UTZ-BD100C
Power	source					220 - 240V, 50Hz		
	Input power	Extra high / High / Low	W	128 / 123 / 96	190 / 185 / 168	289 / 225 / 185	418 / 378 / 295	464 / 432 / 311
	Air flow rate	Extra high / High / Low	m³/h	250 / 250 / 190	350 / 350 / 240	500 / 500 / 440	800 / 800 / 630	1000 / 1000 / 700
Z Z	External static pressure	Extra high / High / Low	Pa	105 / 95 / 45	140 / 60 / 45	120 / 60 / 35	140 / 110 / 55	105 / 80 / 75
HEAL EXCHANGE VENTILATION	Temperature Exchange Efficiency	Extra high / High / Low	%	75 / 75 / 77	75 / 75 / 78	75 / 75 / 76	75 / 75 / 76	75 / 75 / 79
HEAI VEN	Energy Exchange Efficiency Cooling	Extra high / High / Low	%	63 / 63 / 65	66 / 66 / 71	62 / 62 / 64	65 / 65 / 68	65 / 65 / 70
	Energy Exchange Efficiency Heating	Extra high / High / Low	%	70 / 70 / 72	69 / 69 / 73	67 / 67 / 69	71 / 71 / 74	71 / 71 / 76
	Sound pressure level	Extra high / High / Low	dB*	31.5 / 30.5 / 26.5	33.0 / 31.0 / 25.5	37.5 / 35.5 / 32.5	37.5 / 37.0 / 34.5	38.5 / 37.5 / 34.5
N	Input power	Extra high / High / Low	W	128 / 123 / 96	190 / 185 / 168	289 / 225 / 185	418 / 378 / 295	464 / 432 / 311
VORMAL	Air flow rate	Extra high / High / Low	m³/h	250 / 250 / 190	350 / 350 / 240	500 / 500 / 440	800 / 800 / 630	1000 / 1000 / 700
ĚĒ	External static pressure	Extra high / High / Low	Pa	105 / 95 / 45	140 / 60 / 45	120 / 60 / 35	140 / 110 / 55	105 / 80 / 75
_ Ξ	Sound pressure level	Extra high / High / Low	dB*	31.5 / 30.5 / 26.5	33.0 / 31.0 / 25.5	38.5 / 38.0 / 32.5	37.5 / 37.0 / 34.5	40.5 / 39.5 / 36.5
Dimen	isions (W × D × H)		mm	882 × 599 × 270	1050 × 804 × 317	1090 × 904 × 317	1322 × 884 × 388	1322 × 1134 × 388
Neigh	t		kg	29	49	57	71	83
Dutlet	duct diameter		mm	150	150	200	250	250
Operal	tion range		°C	-10 to 40				
Maxim	num humidity		%	85	85	85	85	85

\* The noise level must be measured 1.5 m below the centre of the unit

#### Dimensions (Unit: mm)



### Extended range of an external static pressure

An external static pressure is improved by adopting a powerful fan motor.

This allows for application in a wide variety building.

### Easy remote operation



- POWER ON/OFF
- Air volume High/Low
- Heat exchange /Normal Ventilation
- ON/OFF Timer
- Clean filter display

	UTZ-BD025C	UTZ-BD035C	UTZ-BD050C	UTZ-BD080C	UTZ-BD100C
A	810	978	1018	1250	1250
В	599	804	904	884	1134
C	315	580	640	428	678
D	142	112	132	228	228
E	600	600	600	600	600
F	655	860	960	940	1190
G	19	19	19	19	19
Н	270	317	317	388	388
1	135	159	159	194	194
J	159	182	182	218	218
K	882	1050	1090	1322	1322
L	414	470	470	612	612
Μ	95	70	70	85	85
Ν	Ø164	Ø164	Ø210	Ø258	Ø258
0	Ø144	Ø144	Ø194	Ø242	Ø242

# **DX-Kit** for air handling applications

Models **Control unit** UTY-VDGX

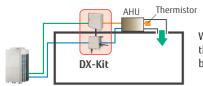
EEV unit UTP-VX30A UTP-VX60A UTP-VX90A

These kits enable other manufacturers air handling units (AHU) and fan coil units (FCU) to be incorporated into a Fujitsu VRF system or, be connected to a dedicated Fujitsu VRF outdoor unit as a 1:1 system to control outside air ventilation (AHU) or room temperature (FCU).

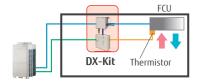


Feature

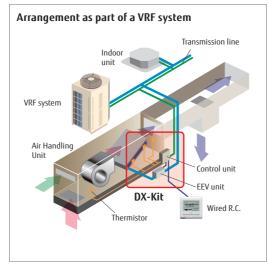
### Multiple temperature sensors optimally control the air handling unit and fan coil unit.



When connecting to an air handling unit, the supply air temperature is controlled by the discharge sensor.

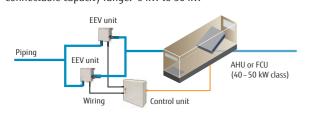


When connecting to a fan coil unit, the room temperature is controlled by the return air temperature sensor.



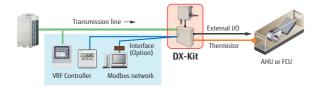
### Supports a wide range of capacity classes

• 2 EEV units can be connected in parallel and up to 20 HP (50 kW) large capacity units. (Separation Tube of UTP-LX180A is required.) • Connectable capacity range: 5 kW to 50 kW

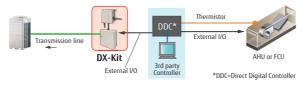


### A variety of controls to match the application

• Central control using our VRF controllers or central management controllers



Central control from external controllers



Functions Summary

### Inputs

### ON/OFF

- Setting temperature
- Capacity demand
- Heating / Cooling operation mode
- Fault information



Spo	ecific	ations
-----	--------	--------

EEV unit				UTP-VX30A			UTP-VX60A			UTP-VX90A		UTP-VX90A×2	
Power source		V/Ø/Hz		230/1/50									
Connectable ca	pacity class	kW	5.0	6.3	8.0	10.0	12.5	14.0	20.0	25.0	40.0	50.0	
Constitut	Cooling	- kW	5.6 (5.1-5.9)	6.3 (6.0-7.1)	8 (7.2-9.0)	10 (9.1-11.1)	12.5 (11.2-13.2)	14 (13.3-18.0)	22.4 (18.1-23.7)	25 (23.8-28.0)	40 (28.1-44.7)	50.4 (44.8-50.4	
Capacity	Heating	KW	6.3 (5.7-6.7)	7.1 (6.8-8.0)	9 (8.1-10.0)	11.2 (10.1-12.4)	14 (12.5-15.0)	16 (15.1-20.0)	25 (20.1-26.5)	28 (26.6-31.5)	45 (31.6-49.9)	56.5 (50.0-56.5)	
Airflow Rate(Re	ference value)	m3/h	1,060	1,200	1,520	1,600	2,000	2,240	3,560	4,000	6,400	8,000	
Dimensions (H	× W × D)	mm				160 × 2	20 × 90				(160 × 22	0 × 90)× 2	
Weight		kg				1	2				2 :	× 2	
Connection pipe diameter	Liquid	mm	9.52	9.52	9.52	9.52	9.52	9.52	12.70	12.70	12.70	12.70	

Control unit		UTY-VDGX
Power source	V/Ø/Hz	230 / 1 / 50
Dimensions (H × W × D)	mm	400 × 400 × 120
Weight	kg	10

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB Pipe length : 7.5 m Voltage : 230 [V].

### Modbus Control

• Possible to control via a Modbus enabled BMS by using optional interface.

#### • Thermo ON/OFF indication

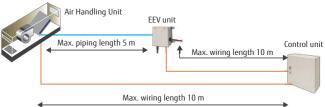
Outputs

ON/OFF indication

Defrost indication

• Fault indication

• Fan ON/OFF indication





# AIRSTAGE<sup>™</sup> CONTROL SYSTEMS & OPTIONAL PARTS

# User friendly control system provides individual control to centralized control

The AIRSTAGE<sup>™</sup> control system can perform air conditioning control of individual room, centralized control by floor or by building, or centralized energy saving air conditioning control for large buildings. A variety of air conditioning management schemes are available to match the application, such as linking with the building control system, linking with a single split models, and using various interfaces.

CONTROL SYSTEMS Control System Overview Individual Controller Centralized Controller Convertor / Adaptor

OPTIONAL PARTS Optional Parts Overview External Power Supply Unit Auto Louver Grille Kit

CONTROL SYSTEM LIST OPTIONAL PARTS LIST CONTROL SYSTEM Lineup OPTIONAL PARTS Lineup FUNCTION LIST SEPARATION TUBE etc.

# **BEST CONTROL SOLUTION FOR EACH PROPERTY**

Fujitsu General provides the best control solutions suitable for the various properties.

Туре	Individual Control		Centraliz	ed Control		Inte	egrating Control (Interf	ace)
S TEL					_	$\sim$		
	Wired Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	Network Convertor for LONWORKS®	MODBUS® Convertor	KNX® Convertor
E.	UTY-RNRGZ3, UTY-RLRG	UTY-CGGG	UTY-DCGGZ1	UTY-DTGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-VLGX	UTY-VMGX	UTY-VKGX
Automatic control of A/C (Schedule timer, Weekly timer etc.)	•	•	•	•	•			
Limited control for staff (RC Prohibition, Room temp set point limitation etc.)			•	•	•	•	٠	•
Group Control		•	•	•	•			
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)					•			
Remote Management			•	•	•			
Aanage multiple sites			•	•	•			
Nonitor energy consumption					•			
ontrol third party products					•			
itegrate FGL A/C into BMS						•	٠	•

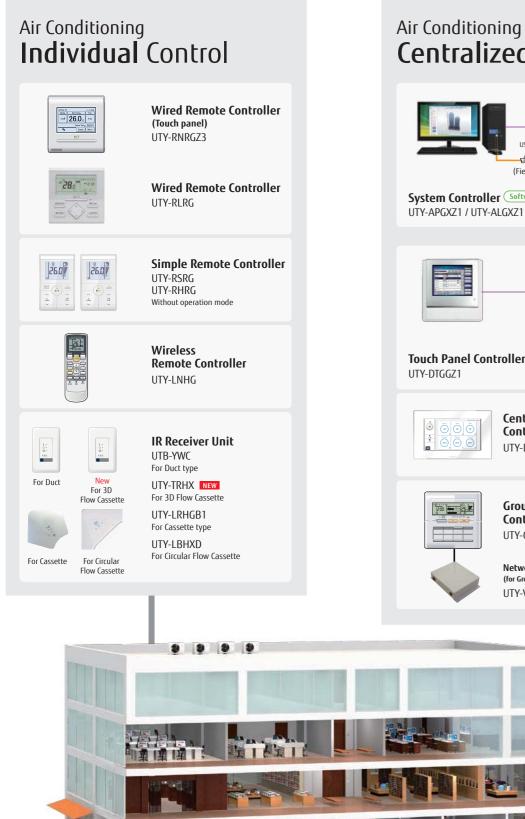
### HOTEL

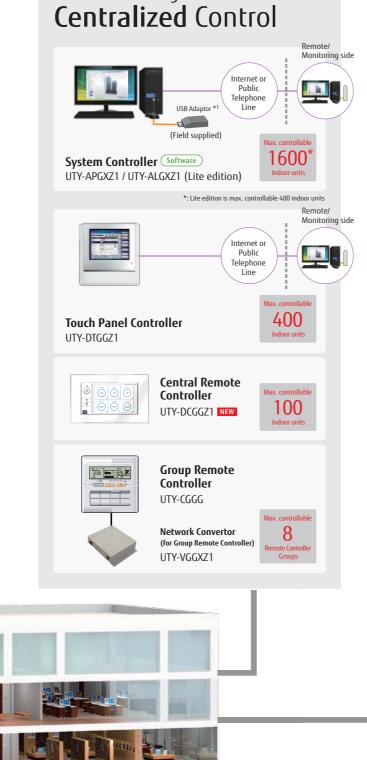
Туре		Individual Control			Centralize	ed Control			Integra	ting Control (In	terface)	
The second s									$\diamond$			
A P P P P P P P P P P P P P P P P P P P	Wired Remote Controller	Simple Remote Controller	Wireless Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	BACnet® Gateway	Network Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor	External Switch Controller
	UTY-RNRGZ3, UTY-RLRG	UTY-RSRG, UTY-RHRG	UTY-LNHG	UTY-CGGG	UTY-DCGGZ1	UTY-DTGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-ABGXZ1, UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TERX
Local control for hotel guest	•	•	•									
Centralized A/C control for common space				•	•	•	•	•	•	•	•	
Limited control for hotel guests					•	•	•	•	•	•	•	
Remote Management					•	•	•					
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)							•	•				
Monitor energy consumption							•					
Control third party products							•					
Integrate FGL A/C into BMS								•	•	•	•	
Interlock with window contact												•
Interlock with key-card												•

Туре		Individual Control			Centralize	ed Control			Integra	ting Control (In	terface)	
P P STREET							-		$\checkmark$			
The Letter	Wired Remote Controller	Simple Remote Controller	Wireless Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	BACnet® Gateway	Network Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor	External Switch Controller
- Core	UTY-RNRGZ3, UTY-RLRG	UTY-RSRG, UTY-RHRG	UTY-LNHG	UTY-CGGG	UTY-DCGGZ1	UTY-DTGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-ABGXZ1, UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TERX
Local control for office staff	•	•	•	•	•							
Automatic control of A/C (Schedule timer, Weekly timer etc.)	•		•	•	•	•	•	•				
Centralized A/C control for management					•	•	•	٠	•	•	•	
Limited control for office staff (RC Prohibition, Room temp set point limitation etc.)					•	•	•	•	•	•	•	
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)							•	٠				
Remote Management					•	•	•					
Energy Charge Apportionment						•	•	•				
Monitor energy consumption							•					
Control third party products							•					
Integrate FGL A/C into BMS								•	•	•	•	
Interlock with door contact												•
Interlock with human sensor for meeting room												•

# **CONTROL SYSTEMS OVERVIEW**

User's needs are supported by offering a variety of controls, such as individual control, central control and building management control options.

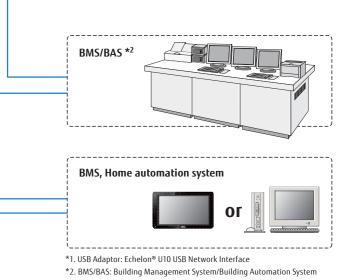


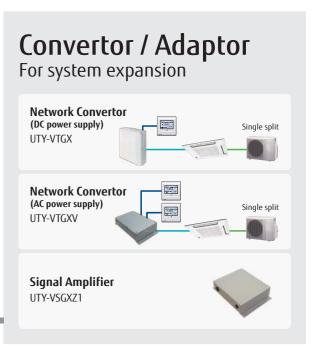


For Light Commercial • J- Series

BACnet <sup>®</sup> Gate			
BACnet® Gate			
<b>Network Conv</b> UTY-VLGX	ertor For LONWORKS®		-
<b>MODBUS® Co</b> r UTY-VMSX	<b>wertor</b> For indoor unit		
<b>MODBUS® Co</b> i UTY-VMGX	nvertor		
<b>KNX<sup>®</sup> Convert</b> UTY-VKSX	<b>Of</b> For indoor unit		
<b>KNX® Convert</b> UTY-VKGX	Of For VRF		
<b>Wireless LAN</b> UTY-TFSXZ1	Interface		• • • • • • •
External Swite	ch Controller	-	
	Card-key (Field supplied)	Internet device	







# COMPARISON TABLE OF CONTROLLERS

									-	
	Wired Remote Controller (Touch panel)	Wired Remote Controller	Simple Remote Controller	Simple Remote Controller* <sup>1</sup>	Wireless Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller Lite	System Control
name	UTY-RNRGZ3	UTY-RLRG	UTY-RSRG	UTY-RHRG	UTY-LNHG	UTY-CGGG	UTY-DCGGZ1	UTY-DTGGZ1	UTY-ALGXZ1	UTY-APGXZ1
ontrollable remote controller groups	1	1	1	1	1	8	100	400	400	1600
ontrollable indoor units	16	16	16	16	16	128	100	400	400	1600
ontrollable groups	-	-	-	-	_	-	50	400	400	1600
On / Off	•	٠	•	•	٠	•	•	•	•	٠
Operation mode setting	•	٠	•	-	٠	•	•	•	•	٠
Fan speed setting	•	•	•	•	•	•	•	•	•	٠
Room temp. setting	•	•	•	•	•	•	•	•	•	•
Room temp. set point limitation	•	•	•	•	_	-	•	•	•	٠
Test operation	•	•	•	•	•	-	-	•	-	-
Up/down air direction flap setting	•	•	•	•	•		•	•	•	•
Right/left air direction flap setting	•	•	_	_	•	_	•	•	•	•
Individual louver control	•		_			_	•* <sup>3</sup>	•	_	
Group setting	_	_	_			_	•	•	•	•
RC prohibition		_	_		_	_	•	•	•	•
Anti freeze setting	•	_	_		_		•	•	•	•
Set temp. auto return	•	•	_		_			•		
Economy mode setting	•	•			•		•	•	•	•
	•							•	•	
Human sensor control	•	-	-	_	-	-	-	•		
Error		•	•	•			•	-	•	
Defrosting	•	•	•	•		-	•	•	•	•
Current time	•	•	-	-	•	•	•	•	•	•
Day of week	•	•	-	_		•	•	•	•	•
R.C. prohibition	•	•	•	•	-	•	•	•	•	•
Address display	•	•	•	•	_	•	-	•	•	•
Room temp	•	-	•	•	_	-	•	•	-	-
Multi language	•	-	-	_	_	-	•	•	•	٠
Summer time	•	-	-	-	=	-	•	•	•	•
Name registration	•	-	-	-	-	-	•	•	•	•
Backlight	•	-	•	•	-	-	•	•	-	-
2D floor layout / 3D building display	-	-	-	-	-	-	-	-	-	٠
Refrigerant leakage detection function	-	-	-	-	-	-	•	•	•	٠
Period	Week	Week	-	-	-	Week	Week	Year	Year	Year
Schedule timer On/off, Temp, Mode,	8	4	_	_	_	4	20	20	144	144
Times per day										
On/off timer	•	•	-	-	•	-	-	-	-	-
Sleep timer	-	-	-	-	•	-	-	-	-	_
Program timer	-	-	-	-	•	=	-	-	-	-
Auto off timer	•	•	-	-	-	-	•	•	-	—
Day off	•	•	-	-	_	-	•	•	•	•
Min. unit of timer setting (Minutes)	10 • 30	30	-	-	5	10	10	10	10	10
Status monitoring system	-	-	-	-	_	-	•	•	•	•
Electricity charge apportionment	-	-	-	-	-	-	-	0	0	•
Error history	•	•	-	-	-	•	•	•	•	•
Emergency stop	-	-	-	-	-	-	•* <sup>2</sup>	•* <sup>2</sup>	-	_
Remote management	-	-	-	-	-	-	•	•	0	٠
Energy saving management	-	-	-	-	-	-	-	-	0	0
E-mail notification for malfunction	-	-	-	-	_	-	•	•	•	٠
Key lock	Child lock	Child lock	_	-	_	Child lock	Password setting	Password setting	• Password setting	• Password set
		_	1	1				•	•	•

# Wired Remote Controller (Touch Panel)

#### UTY-RNRGZ3

Easy operation by high-definition large STN-LCD touch panel screen

- Easy finger touch operation with LCD panel
- Built-in weekly/Daily timer (ON/OFF, Temp., Mode)
- · Backlight enables easy operation in a darkened room
- Room temperature display
- Control up to 16 indoor units
- Corresponds to 12 different languages
- (English, Chinese, French, German, Spanish, Russian, Polish, Italian, Greek, Portuguese, Turkish and Dutch) 2-wire type

#### Functions

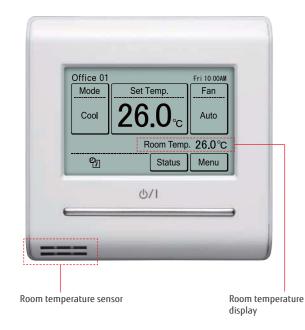
#### High performance and compact size

• In addition to the individual control, various energy saving controls can be realized using one remote controller only.



### Accurate and comfortable control

• Indoor temperature can be detected accurately by the inclusion of a thermo sensor in the body of the wired controller.



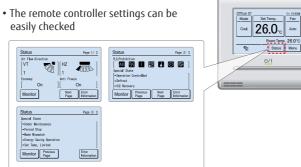
### Backlight

- Backlight enable easy operation in a darkened room.
- For the lighting time of Backlight, 30 or 60 seconds can be set.
- Backlight activates while the buttons are operated and goes off 30 or 60 seconds after the operation stops.



### Various convenient functions

#### Displays setting status and Limitations



#### Summer Time display

 This function can be set easily from Menu screen



#### **Child lock**

Name Registration

the room.

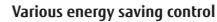
• Remote controller names can be registered in the remote controller

screen. This makes it easy to identify

• Lock / unlock method: Push the ON/ OFF button and the screen (4 seconds)



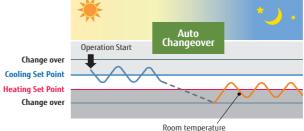
# the indoor unit you want to control in



#### **Custom Auto**

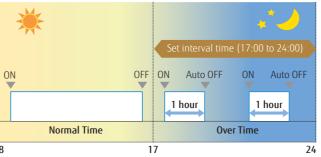
- Maintains 2 separate set points for heating and cooling.
- Automatically changes mode between heating and cooling.

#### \* This function is not available for some models Cooling set temp. 27°C, Heating set temp. 26°C



#### Auto OFF timer

- The indoor unit automatically is turned off when it reaches to the preset operating time frame.
- The time frame of the "Auto off timer" can be flexibly scheduled. • Can be set off time 30 to 240 minutes



Ex.) At interval time hour (17:00 to 24:00) to prevent forgetting to turn off Set off time : 1 hour

#### 2 schedules Weekly Timer

- 2 schedules such as for the summer and winter can be set. • 8 setting changeable per day of week (Setting items: On/Off,
- Temperature, Mode, Time)



#### Set Temperature Auto Return

- The setting temperature automatically returns to the previous setting temperature.
- The time range in which the set temperature can be changed is 10 to 120 minutes.

#### Set Temperature Upper and Lower Limit Setting

• The set temperature range can be set for each operation mode. (Cooling / Heating / Auto).

	UTY-RNRGZ3
	DC 12V
mm	120 × 120 × 20.4
q	220
-	-



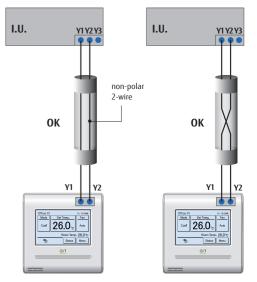
Max controllab

16

### Simplified installation

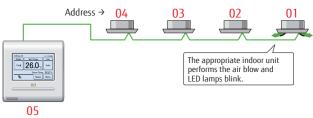
#### Uses non-polar 2-wire type

• The faulty wiring can be prevented by using non-polar 2-wire.



#### Auto Address Setting/Setting Position Notification

- Reduce errors and install time compared with the current specification Rotary SW
- When will be set remote controller groups, can also be set automatically new Wired remote controller address
- After auto address setting of new wired remote controller groups, what number can also confirm addresses



### **Easy Maintenance**

#### **Error History Display**

- The errors that occur in the indoor unit or remote controller are saved as a history.
- A maximum of 32 error incidents can be saved.

					v
	Error History			Page 1/ S	
	No. Date	Tine	Address	Code	
	1 2012/ 8/ 1	11:00A#	000-01	141	
	2 2012/1/20	2.534	902-02	143	
	3 2012/7/25	8.5M	002-02	143	
		11:004	000-01	141	
	5 2012/ 7/22	11:004	002-01	141	
	6 2012/7/21	11:00M	002-01	141	
	Back	[	Nont Page	Enise All	
		<u>6</u> /	ļ		
_					

# Wired Remote Controller

#### UTY-RLRG

• Various timer setup (ON / OFF / WEEKLY) are possible

- The room temperature can be controlled by detecting the temperature accurately with Built-in thermo sensor.
- When a failure occurs, the error code is displayed.
- Error history. (Last 16 error codes can be accessed.)

2-wire type



#### Functions

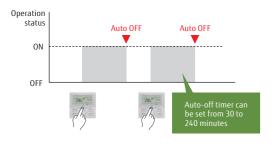
#### High performance and compact size

In addition to the individual control, weekly timer, and various energy saving controls can be realized using only one remote controller.

Individual control	+	Thermo sensor	+	Weekly timer	+	Auto off timer	$\rightarrow$	28,
-----------------------	---	------------------	---	-----------------	---	-------------------	---------------	-----

#### Auto-off timer

• The indoor unit automatically turns off after a set time has passed.



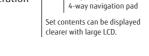
### Weekly timer function

• Not only time setting On / Off, but also setting of the operation mode and set temperature can be set by Weekly timer function.



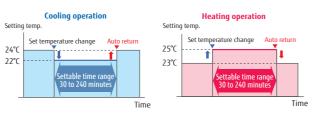
### High visibility and easy operation

- "Mode", "Set Temp", and "Fan" are displayed at large size on the top screen. • Each function to be set is indicated by
- an icon. • Control guide is displayed and operation
- is simple and straightforward.



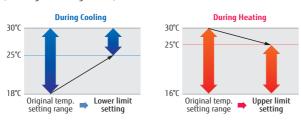
#### Set temperature auto return

- The setting temperature automatically returns to the previously set temperature.
- The time range in which the set temperature can be changed is 30 to 240 minutes.



### Set temperature upper and lower limit setting

• The set temperature range can be set for each operation mode. (Cooling / Heating / Auto)



# Simple Remote Controller

#### UTY-RSRG

#### UTY-RHRG (Without Operation mode)

#### Compact remote controller provides access to basic functions

- Up to 16 indoor units can be controlled with one remote controller.
- Suitable for hotels or offices as it is easily operated with no complex functions.
- Stylish design: Simple design to match the stylish interior.
- Large LCD screen & simple operation buttons
- Backlight: White colored backlight on monitor enable easy operation in dark. 2-wire type

#### Functions

#### Corresponding to various applications

• Vertical louver control:

Vertical air flow direction can be adjusted for Duct types with auto louver and Cassette types, which are installed in hotels and conference rooms, can be adjusted.

#### • Room temperature set point limitation:

The Simple Remote Controller can manage to energy saving operation in small buildings without the central control unit.

#### • Built in room temperature sensor:

The Simple Remote Controller detects actual room temperature and controls room climate accuracy.

specifications		
Model name		UTY-RLRG
Power Supply		DC 12V
Dimensions (H x W x D)	mm	120 × 120 × 17
Weight	g	170

#### **Specifications** Model name UTY-RSRG Power Supply Dimensions (H x W x D) mm Weight q DC12V is supplied by indoor unit.

DC12V is supplied by indoor unit.

Consifications



Max, controllab

16

·28. phisticated control button imple operation with easy



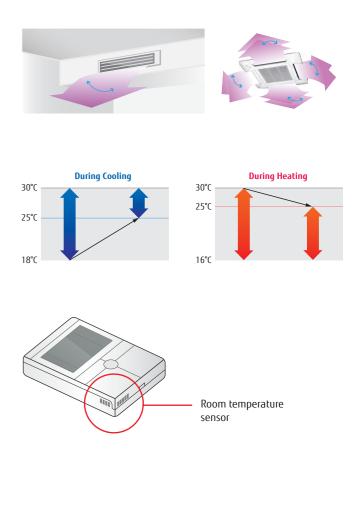








UTY-RHRG Without Operation mode



	UTY-RHRG
DC	12V
120 × 7	5 × 19.4
12	20

# Wireless Remote Controller

#### UTY-LNHG

Simple and sophisticated operations with a choice of 4 daily timers

• A single controller controls up to 16 indoor units.



Selectable

#### Functions

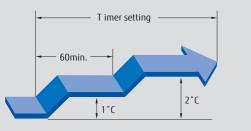
#### Built-in daily timer

Select from 4 different timer programs : On / Off / Program / Sleep Program timer : The program timer operates the ON and OFF timer once within a 24 hour period.

Sleep timer : The sleep timer function automatically corrects the set temperature according to the time setting to prevent excessive cooling or heating during sleep hours.

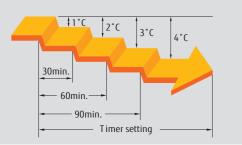
#### Cooling operation/dry operation

When the sleep timer is set, the set temperature automatically rises 1°C every hour. The set temperature can rise up to a maximum of 2°C.



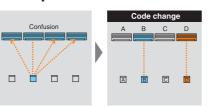
#### Heating operation

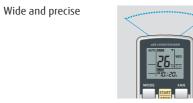
When the sleep timer is set, the set temperature automatically drops 1°C every 30 minutes. The set temperature can drop to a max. of 4°C.



### Easy installation and operation

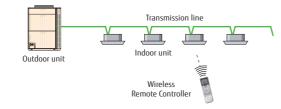
Code selector switch prevents indoor unit mix-up. (Up to 4 codes can be set.)





### Address setting

During installation work, address setting can be performed using the Wireless Remote Controller, thus eliminating manual switch setting.



# IR Receiver Unit for Duct

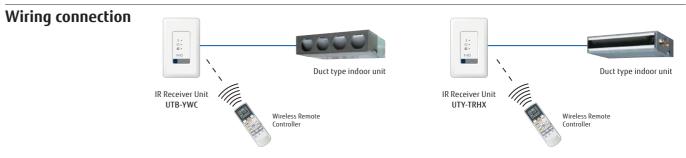
#### UTB-YWC, UTY-TRHX

Duct type\* indoor units can be controlled with Wireless Remote Controller \*Only Large Airflow Duct can not be connected to IR Receiver Unit.

• Up to 16 indoor units can be controlled with one remote controller.

• Suitable for hotels or offices as it is easily operated with no complex functions. \*The wireless remote controller (Model: UTY-LNHG) is necessary separately

#### Functions



### Specifications

Model name		UTB-YWC	UTY-TRHX
Power Supply		DC 5V	DC 5V
Dimensions (H x W x D)	mm	145 × 90 × 30	145 × 90 × 30
Weight	g	150	150

# IR Receiver Unit for Cassette

#### UTY-LRHGB1, UTY-LBHXD, UTY-TRHX

Cassette type indoor unit can be controlled with Wireless Remote Controller

#### Functions



Model name Power Supply		UTY-LRHGB1	UTY-LBHXD	UTY-TRHX
		DC 5V	DC 5V	DC 5V
Dimensions (H x W x D)	mm	193.9 × 193.9 × 31.2	193.9 × 193.9 × 31.2	145 × 90 × 30
Weight	g	140	140	150

Specifications		
Model name		UTY-LNHG
Power Supply		1.5V (R03 / LR03 / AAA) × 2
Dimensions (H x W x D)	mm	170 × 56 × 19
Weight	g	85



# Group Remote Controller / Network Convertor



Group control of indoor units with simple operation

- Up to 8 remote controller groups can be controlled by one Group Remote Controller.
- Up to 64 Group Remote Controllers can be connected in one VRF network system.
- Network Convertor is required to connect Group Remote Controllers to a VRF network system. (Network Convertor allows up to 4 Group Remote Controllers)
- 3-wire type



8

92 indoor units

8

2

UTY-VGGXZ1 For Group Remote Controller

UTY-CGGG

### UTY-DCGGZ1 NEW

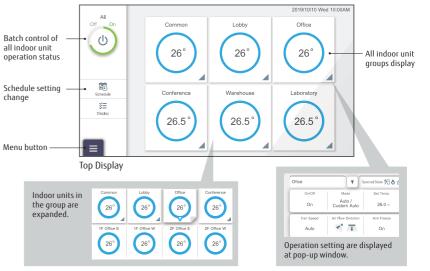
### For small- and medium-sized buildings and tenants

- Individual control and monitor of 100 indoor units
- 7.0inch TFT color screen
- High visibility and easy operation
- Supports max.12 different languages
- Standard language corresponds to 12 different languages.
- (English, Spanish, German, French, Italian, Russian, Portuguese, Turkish, Polish, Greek, Dutch, Chinese)

#### **Functions**

#### Easy operation

- The new central remote controller realized an intuitive operation feeling by touch panel operation.
- All functions can be accessed from the top screen and the following operations are displayed at pop-up window.





#### Group Remote Controller 1: To control office room, lounge restaurant and lobby (8 remote controller groups)

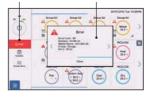
Group Remote Controller 2: To control guest room and launge (7 remote controller groups)

### **Trouble support function**

**Display error details** Display descriptive explanation when an error occurs

### Display error

All indoor unit groups display details



#### Sensor value monitoring function

Monitor sensor data of indoor unit / outdoor unit, send mail

#### Notify room temperature by email

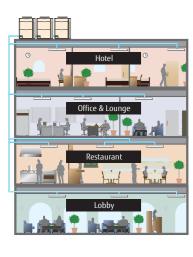
Notify by e-mail when the temperature around the air conditioner is too high or too low

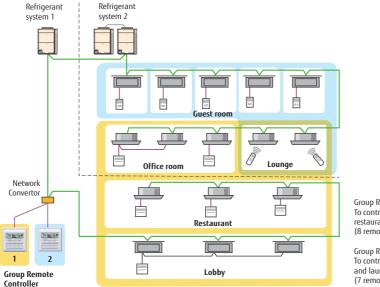
Specifications		
Model name		UTY-DCGGZ1
Power Supply		100-240 V 50/60 Hz
Dimensions (H x W x D)	mm	134.6 × 216.2 × 37.9
Weight	g	800

### Functions

### Control up to 8 remote controller groups

Single Group Remote Controller controls and monitors up to 8 remote controller groups.





Refrigerant

### High performance and compact size

ON / OFF, Operating mode, Room temperature and Fan speed setting can be controlled / monitored centrally or individually.



### **Built-in weekly timers**

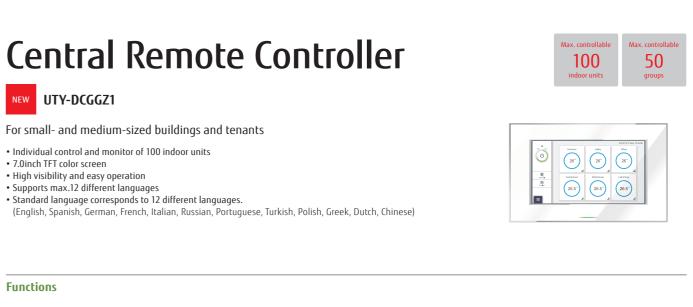
The weekly timer is provided as a standard function.

#### **Specifications**

Model name		UTY-CGGG
Power Supply		DC 12V
Dimensions (H x W x D)	mm	120 × 120 × 18
Weight	g	200

DC12V is supplied by indoor unit.

Model name		UTY-VGGXZ1 208-240V 50/60Hz, Single phase
Power Supply		
Input power	W	8.5
Dimensions (H x W x D)	mm	67 × 288 × 211
Weight	g	1,500



### Remote monitoring / Remote operation

New central remote controller can control your tenant's air conditioner anytime and anywhere.

#### Example

- Control / Monitoring Fujitsu air conditioner
- Error notification by E-mail



# **Touch Panel Controller**

#### UTY-DTGGZ1

- Large-sized 7.5-inch TFT color
- LCD Easy finger touch operation
- Stylish shape and design to suit all application • Up to 400 indoor units can be controlled
- Selectable 2 display types (Icon / List) in monitoring mode
- Supports 7 different-languages ,English, Chinese, French, German, Spanish, Russian, Polish • Mounted with LAN interface for remote control & operation, external input / output with
- emergency stop and batch ON / OFF



XX/XX/XXXX XX:XX

Max controllable

100

Max controllable

400

Max, controllable

400

#### Functions

#### Control & monitoring from anywhere

- Control and monitor Fujitsu's air conditioner via LAN or Internet.
- Allow user or tenant to manage only assigned equipment by their PC or tablet from anywhere.
- Error contents are notified automatically by E-mail at error occurrence to handle the trouble promptly.

Monitor Mode Dowr List Top **€** Up Setting Office A PC Room Schedule 四開 🛛 💥 On **F** AS Cool ASCool 8 26.0°C 8 21.5°C 21 0 C Restrant Entrance Select All Room 101 Off **X** On On B ₩Auto 8 24.0°C A Auto Clear All 8 24.0°C Meeting 2 Meeting 3 Meeting Off On 8 21.5°C 200 AR 8 821.0°C Operation Conference B Parking lot Conference A Off On ø 協Auto 22.0°C On #Heat 1 21.5°C 200 Off p Schedule Op. Controlled Mode

#### Easy maintenance

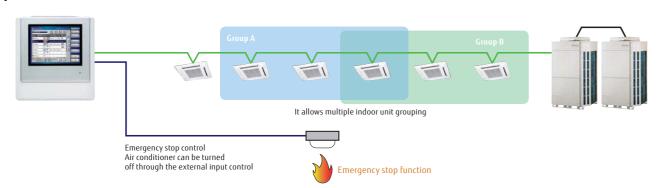
- Flat touch screen is easily cleaned
- Non-glare coating on touch panel controller
- minimizes fingerprint marking
- Easy-to-remove front cover

### Easy installation

- Touch Panel Controller is easily mounted to the wall.
- Flat back surface allows to be installed wherever it
- is needed. • No additional component is required for installation

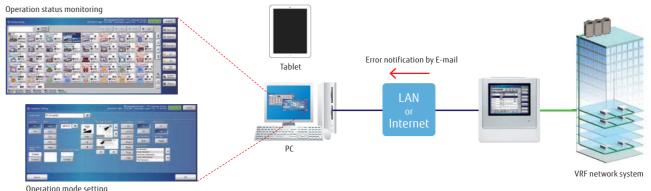


#### Up to 400 indoor units can be controlled



### **Control & monitoring**

- Control and monitor Fujitsu's air conditioner via LAN or Internet.
- Allow user or tenant to manage only assigned equipment by their PC or tablet from anywhere.
- Error contents are notified automatically by E-mail at error occurrence to handle the trouble promptly.



#### Smart Phone

Model name	Browser	
Nexus 6P (Android 7.1.1)	Google Chrome 5.5	
iphone7 (iOS 10.1)	Safari 10	

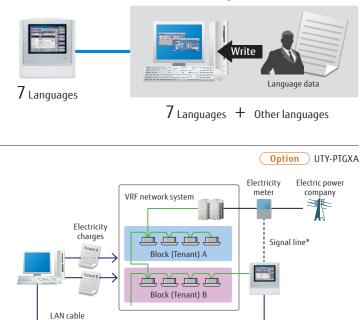
### Flexible access permission for Point each level user.

Administrator can register multiple user to permit which indoor unit(s) and which function can access.



### Additional languages function

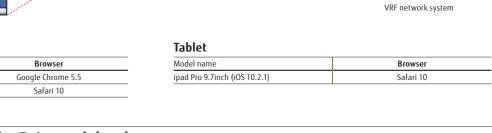
Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish as standard. Additional language can be integrated on remote device by creating language database. Additional language is displayed on only the remote device, and Touch Panel Controller cannot be added other languages.

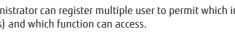


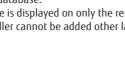
### Electricity charge apportionment

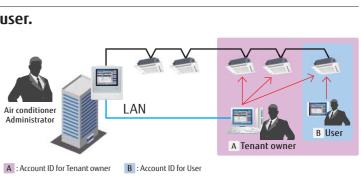
• Electricity charge apportionment can be performed easily for the power consumed when billing users for air conditioning power charges

- Apportionment charge/bill calculation
- Tenant (block) setting
- Common facilities apportionment setting
- Rated power consumption allotment setting
- Individual calculation at cooling and heating
- Electricity meter supported









### Monitoring from web site

\*: Electricity meter (1unit) can be connected to external input connector of the TPC unit. In this case, electricity meter cannot be connected to outdoor unit simultan

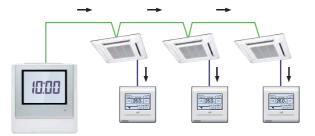
### Automatic summer time setting

#### **Providing function**

- 1) Schedule setting of summer time setting
- It prevents the user from forgetting to set summer time. In addition, it reduces the time and labor of user.

#### Automatic clock adjustment

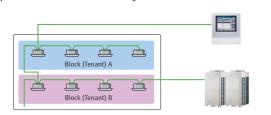
2) The time setting of each controller can be set in batch automatically.

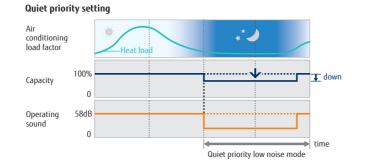


### Outdoor low noise operation

Users can choose from 4 low noise levels, depending on the installation environment.

The operation time can be set using the timer.





### Various energy saving control

#### **Custom Auto**

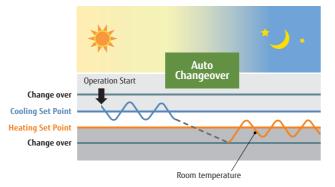
- Maintains 2 separate set points for heating and cooling.
- Automatically changes mode between heating and cooling. \* This function is not available for some models.



### Refrigerant leakage detection function

The refrigerant leak condition is indicated by the management equipment, and if refrigerant leakage occurs, it is displayed as a pop-up, the user is notified, and the refrigerant is shut off.

#### Cooling set temp. 28°C, Heating set temp. 18°C





Pop-up highlighting

#### FUNCTIONS SUMMARY

I UNCTIONS SOMMARY		
	UTY-DTGGZ1	Monitoring side
Air conditioning control function		
On / Off	•	•
Operation mode setting*	•	•
Fan speed setting	•	•
Room temp. setting	•	•
Room temp. set point limitation	•	•
Test operation	•	•
Up/down air direction flap setting	•	•
Right/left air direction flap setting	•	•
Individual louver control	•*1	•
Group setting	•	•
RC prohibition	•	•
Anti freeze setting	•	•
Set temp. auto return	-	•
Various energy saving control	-	•
Economy mode setting	•	•
Human sensor control	-	•
Display		
Error	•	•
Defrosting	•	•
Current time	•	•
Day of week	•	•
R.C. prohibition	•	•
Cooling/heating priority	•	•
Address display	•	•
Room temp	•	•
Multi language	•	•
Summer time	•	•
Time zone setting	•	•
Name registration	•	•
Backlight	•	•
Language setting	7	7+other
Filter sign reset	•	•
Memory operation	•	•
Refrigerant leakage detection function	•	•

•: Supported O: Optional function -: Not supported yet

\*1 Only setting cancellation can be operated. \*2 This function is available only through external input control.

#### Specifications Model name Power Supply Dimensions (H x W x D) mm Weight g Transmis Interface

		UTY-DTGGZ1	Monitoring side
Timer			
	Period	Year	Year
Schedule timer	On/off, Temp, Mode, Times per day	20	20
On/off timer	•	-	-
Sleep timer		-	-
Program timer		-	-
Auto off timer		-	٠
Day off		•	•
Min. unit of timer setting (Minutes)		10	10
Control			
Status monitoring system		•	•
Electricity charge apportionment		0	0
Error history		•	•
Emergency stop		•*2	•*2
Remote management		-	•
Energy saving management		-	-
E-mail notification for malfunction		-	•
Key lock		• Password setting	-
Low noise mode		•	•

UTY-DTGGZ1	
100-240V 50/60Hz, Single phase	
260 × 246 × 54	
2,150	
ssion / LAN / USB / EXT IN / EXT OUT / Reset SW	

# System Controller Goftware

### UTY-APGXZ1

System Controller realizes the advanced integrated monitoring & control of VRF network system from small scale buildings to large scale buildings.

- Up to a maximum of 4 VRF network systems, 1600 indoor units, and 400 outdoor units can be controlled.
- In addition to air conditioning precision control function, central remote control, electricity charge calculation, schedule management, and energy saving functions are strengthened and building manager and owner needs are met.

# System Controller Lite Goftware





Max. controllable Max. controllable Max. controllable 1 Max. controllable 100 NRF network system indoor units

### UTY-ALGXZ1

System Controller Lite has standard functions sufficient for air conditioner management in small and medium scale buildings.

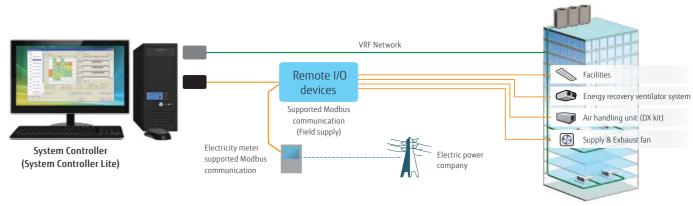
- Up to a maximum of 1 VRF network system, 400 indoor units, and 100 outdoor units can be controlled.
- In addition to air conditioning precision control function, a variety of management software is available as an option to give customers a wide range of choice.



## 3rd party devices connected by Modbus can be controlled.

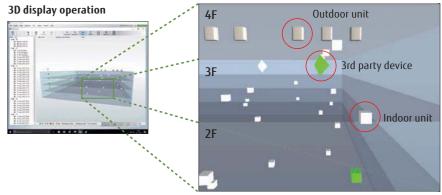
(Stan

When Modbus Adaptor (locally purchased) is connected to PC, the electric facilities supported by Modbus can be controlled centrally. Wasteful electricity charge by forgetting to turn off and patrol activities can be reduced in the entire building.



### 3D display of external equipment

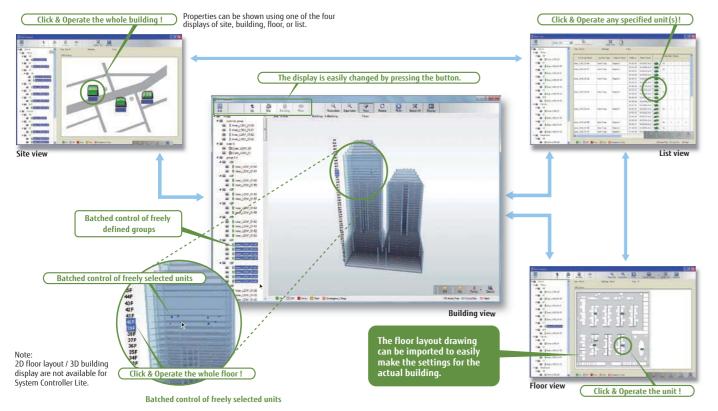
3D display is also enabled for 3rd party devices, so Installation location and operation status can be checked at a glance and the operation can be managed easily.



#### Functions

### User friendly view and operation

- **Click & Operate** : The property is shown visually from the perspective most suitable for operation and operated accordingly (Click & Operate). You can select from among the 4 displays of site, building, floor, or list.
- Freely define groups for batched control : Indoor units can be freely grouped for simple batched control from a tree menu. Grouping by hierarchal structure, such as by section, division or department is possible.



## Diverse operation management & Data management

#### Schedule management

- Annual schedules can be set for each remote controller group / user defined group.
  Start / stop, operating mode, remote controller prohibition, and temperature settings can be set up to 143 times per day at 10 minute intervals for up to 101 configurations for each remote controller group.
- Settings can be made for periods straddling midnight.
- Allows programming of special settings for holidays, including public holidays, for a complete year.
- Low noise operation of outdoor unit can be scheduled.

#### Diverse control of indoor and outdoor unit

- Indoor unit operation state, operation mode, etc. are displayed
- Indoor unit start / stop and operation mode switching
- Room temperature set point limitation

#### Remote controller prohibition

This prohibits changes to the operation mode, temperature, start/stop, etc.

### Automatic clock adjustment

The time setting of each controller can be set in batch automatically.

#### **Standard** for System Controller

**Option** for System Controller Lite UTY-PLGXX2

\*UTY-APGXZ1 only



#### Error display & E-mail notification

Error is notified with popup message, audible sound and E-mail real time when error occurs. Error for the past 1 year are logged and can be reviewed later.

#### Data base import/export

Imports/exports registration data, layout data, and image data. Only the administrator can make this setting.

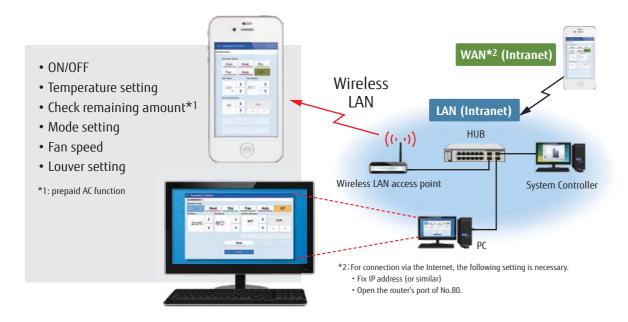
#### Operating & control record

Displays the history of operation status and control.

#### Functions

#### Web Operation

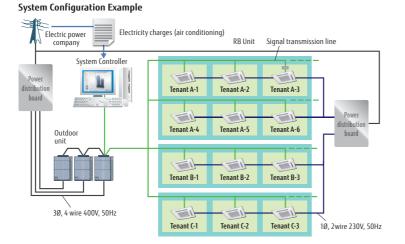
PC and smartphones can be used as simple remote controller. (Indoor unit user setting is necessary to operate it from System Controller side)



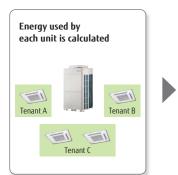
### Electricity charge apportionment

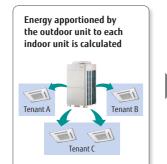
#### Electricity charge apportionment calculation framework

Suppose you want to find the power consumed by the air conditioners of each tenant from the electricity charge for each month. With electricity charge apportionment function, used energy apportionment ratio will be provided, calculating in detail the energy consumed by the units used by each tenant. This information is then used to calculate the charges for the electricity consumed for air conditioning by each tenant from the total electricity charges in the bill from the electric power company. (See figure at right) The detailed calculation takes into consideration such things as unused rooms and nighttime electricity charges and shows them in a charges calculation sheet.



(Standard) for System Controller Option for System Controller Lite UTY-PLGXA2





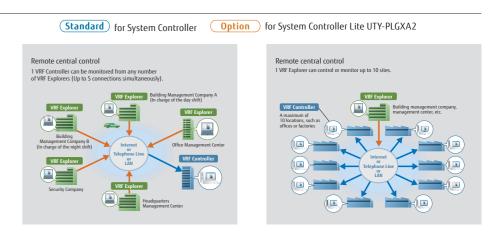
The energy used by each indoor unit and the energy apportioned by the outdoor unit are added together to calculate the total amount of energy used.

Indoor unit total energy used		
t	Apportioned energy	
	Indoor unit energy used	

Electricity charges by tenant are calculated The distribution ratio for energy used by each indoor unit is calculated and the electricity charges for the energy used by each indoor unit are calculated from the total electricity charges. Tenant A Tenant B Tenant C Electric Electric Electric Bill Bill Bill

#### Remote management

System Controller may be used on site or remotely over various networks for remote central control. System Controller requires 2 softwares working together. VRF Controller runs on site and communicate with VRF system. VRF Explorer runs remotely and provides user interface and communicate with the VRF Controller. VRF Controller and VRF Explorer program may run in a single PC or in different PCs separated by network. By using VRF Explorer software, one PC can perform central control of 10 VRF system sites with max. 20 buildings per site.



#### Energy saving management

A variety of energy saving operations can be set and managed depending on the season, weather, and time period. Excellent energy saving operation is performed while keeping users comfortable.

Energy Saving Management Main Screen



Energy saving graph data: This graph compares the electricity consumption with the previous month and previous year to make it easy to analyze the energy saving effect.

Option for System Controller UTY-PEGX Option for System Controller Lite UTY-PLGXE2

### Indoor unit rotation operation

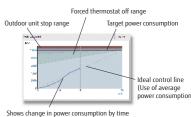
The operation of indoor units can be automatically rotated within a group in accordance with the set annual schedule to reduce power consumption while maintaining comfort. The indoor unit operation stoppage rate can be selected.



### Peak cut operation

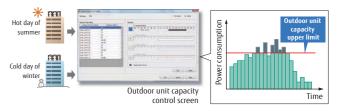
A power meter is connected to detect the total power consumption while shifting the indoor unit set temperature, set the indoor unit forced thermostat off, and taking other measures to carefully control

the power consumed while maintaining comfort and conducting control to maintain the target power consumption set for each time. The indoor units to be controlled can be freely grouped and the control level can be set.



### Outdoor unit capacity save

Outdoor unit capacity save switches the outdoor unit capability upper limit to suppress power consumption during hot summers and cold winters by averaging the power saving effect of each refrigerant system. You can select from 50% or more of the capacity upper limit.

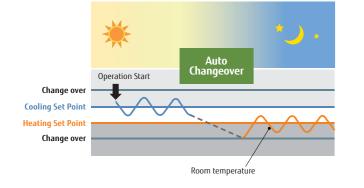


# Functions

# **Custom Auto Function**

Set the temperature to start cooling and the temperature to start heating, and perform the cooling / heating operation according to the room temperature. When the room temperature is between the cooling set temperature and the heating set temperature, since air conditioning is not performed, energy saving performance is improved.

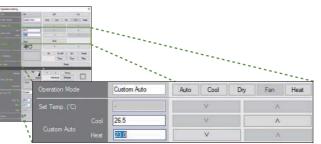
### Cooling set temp. 28°C, Heating set temp. 18°C



# Custom Auto operation display

Set Temp. [C	ustom Auto] (* C)
Cool	Heat
27.0	23.0
25.5	23.0

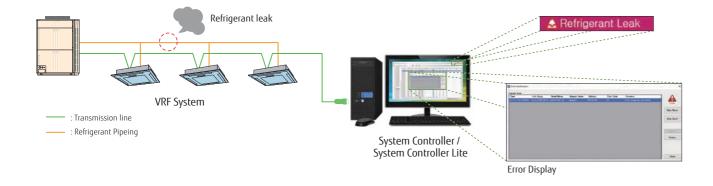
# Custom Auto operation display



\*This function can display only the indoor unit that supports Custom Auto Function

# Refrigerant leakage detect function

The refrigerant leak condition is indicated by the management equipment, and if refrigerant leakage occurs, it is displayed as a pop-up, the user is notified, and the refrigerant is shut off.



### Error display

Error is notified with popup message, audible sound and real time e-mail when error occurs. Error for the past 1year are logged and can be reviewed later.

# Operating & control record

Displays the history of operation status and indications.



# Diverse control of indoor units

- Indoor unit operation state, operation mode, etc. are displayed.
- Indoor unit start/stop and operation mode switching, temperature setting, remote controller prohibition, etc. setting.



# **Energy saving function**

Energy saving operation considering comfort by economy setting, temperature set point limitation, etc.



# FUNCTIONS SUMMARY

			System controller			System controller lite				
Function		Туре	UTY-APGXZ1	Option UTY-PEGXZ1	UTY-ALGXZ1	Option UTY-PLGXR2	Option UTY-PLGXA2	Option UTY-PLGXE2	Option UTY-PLGXX	
	Max. VRF networks su		4	-	1	-	-	-	-	
stem		note controller groups per VRF network	400		400	-	-	-	-	
ecification	Max. outdoor units per System controller Max. indoor units / remote controller groups per System control		1600	-	400	-	-	-	-	
	Max. outdoor units p		400	-	100	-	-	-	-	
	Multi site display			-	10	-	-	-	-	
	Number of building /		20	-	-	-	-	-	-	
	Number of floor per 1 Number of floor per 1		200				-			
te	3D graphical layout view		•	-	-	-	-	-	-	
pervision	2D graphical layout v	2D graphical layout view		-	-	-	-	-	-	
	List display		•	-	•		-	-	-	
	Tree display Group display		•	-						
	Error notification		•	-	•	-	-	-	-	
ror anagement	Audible alarm		•	-	•	-	-	-	-	
anagement	Error e-mail notificati	ion	•	-	•	-	-	-	-	
choru	Error history		•	-	•	-	_	_	_	
istory	Operation history Control history		•	_						
		On/Off	•	-	•	-	-	-	_	
		Operation mode	•	-	•	-	-	-	-	
		Room temperature	•	-	•	-	-	-	-	
	Individual	Fan speed	•	-	•		_	-	_	
	control	Air flow direction Economy mode	•	_		-	-	-	-	
		Room temperature set point limitation	•	_	•			-	-	
peration ontrol		Antifreeze	•	-	•	-	-	-	-	
niciui		Outdoor unit low noise setting	•	-	•	-	-	-	-	
	Individual	Remote control prohibition setting	•	-	•	-	-	_	-	
	management	Temperature upper and lower limit setting Filter sign reset	•		•	-	-	-	-	
		Memory operation	•	_	•	-		-	_	
	Other	Pattern operation	•	-	•	-	-	-	-	
	-	Web operation	•	-	•	-	-	-	-	
	Annual Schedule		•	_	•	-	-	-	-	
	Special day setting On /off per day		72	_	72	-		-		
hedule	On / off per week		504	-	504	-	-	-	-	
	Day off			-	•	-	-	-	-	
	Min. unit of timer set		10	-	10	-	-	-	-	
	Low noise mode Wee	kly schedule	•	-	•	-	-	-	-	
emote	Web Operation Remote monitoring			_	-	-		-	_	
managemment	Remote monitoring Remote operation control		•	_		•		_	_	
		Remote function setting		-	-	•	-	-	-	
	Apportionment charg		•	-	-	-	•	-	-	
lectricity		Tenant (block) setting Common facilities apportionment setting		-	-	-	•	-	-	
harge		ption allotment setting	•	_			•	-	_	
pportionment		at cooling and heating	-	•*	-	-	•	-	-	
	Electricity meter supp		-	•	-	-	•	-	-	
	Indoor unit rotation		-	•	-	-	-	•	-	
	Peak cut control		-	•		-	-	•	-	
nergy aving	Outdoor unit capacity Record of energy savi			•		-		•		
nanagement	Energy saving inform		-	•	-	-	-	•	-	
	Power consumption n		-	•	-	-	-	•	-	
	Electricity meter supp	oorted		•		-	-	•	-	
xternal Device	Monitor		•	-	-	-	-	-	•	
ontrol	Control Database import/exp	ort	•		•	-	-	-	-	
	Automatic clock adjust		•	_	•	-	-	-	-	
thers	Multi language		7 languages	-	7 languages	-	-	-	-	
	Refrigerant leakage d	letection function	•	-	•	-	-	-	-	
ersonal co	mputer system	r calculation application software is necessary em requirements ns are shown in the following Sys		,			System Control	ler Lite		
			Aicrosoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1							
perating system	1	Microsoft <sup>®</sup> Windows <sup>®</sup> 10 Home	® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit) ® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit) Ianguages] English, Chinese, French, German, Russian, Spanish, and Polish							
PU		Intel <sup>®</sup> CoreTM i3 2 GHz or higher								
emory		• 2 GB or more (for Windows® 7	[32-bit]) • 4 GB o	r more (for Winde	ows® 7 [64-bit],	Windows® 8.1, and	Windows® 10)			
DD		40 GB or more of free space355								
isplay		1024 x 768 or higher resolution								
nterface		Ethernet port (for getting access Modem (for getting access to the USB ports (Maximum of 6 ports) (Required only for the Server PC t Maximum of 2 USB ports are requ Maximum of 4 USB ports are requ	Internet using Public hat works as VRF Con uired for WHITE-USB-I	: Telephone Line) troller) KEY/WibuKey conn	Mode •USB ( (Requ ection - Maxi	net port (for getting em (for getting acces ports (Maximum of 6 uired only for the Ser mum of 4 USB ports 8 port is required for	s to the Internet u ports) ver PC that works are required for W	sing Public Teleph as VRF Controller) HITE-USB-KEY/Wib	one Line) ouKey connect	

Function				System co	ontroller		System controller lite			
		Туре	UTY-A	APGXZ1	Option UTY-PEGXZ1	UTY-ALGXZ	UTY-PLGXR2	Option UTY-PLGXA2	Option UTY-PLGXE2	Option UTY-PLGXX
tem		mote controller groups per VRF netwo		4 00	-	1 400	-		-	-
cification	Max. outdoor units p Max. indoor units / re	er System controller emote controller groups per System cr		00 500	-	100 400	-	-	-	-
	Max. outdoor units p		4	00	-	100	-	-	-	-
	Multi site display Number of building /	1 site		10 20		10	-	-	-	-
	Number of floor per	l site	2	00	_	-	-	-	-	-
e	Number of floor per 3D graphical layout v			50 •		-			-	-
ervision	2D graphical layout v	graphical layout view		•	-	-	-	-	-	-
List display				•	_	•	-	-	-	-
	Tree display Group display			•	-	•	-	-	-	-
DF	Error notification Audible alarm			•	-	•	-	-	-	-
nagement	Error e-mail notificat	ion		•	_	•	-	-	-	-
	Error history			•	-	•	-	-	-	-
story	Operation history Control history			•	_	•	-	-	-	_
	1	On/Off		•	_	•	-	-	-	-
		Operation mode Room temperature		•		•	-	-	-	-
	Individual	Fan speed		•	-	•	-	-	-	-
	control	Air flow direction Economy mode		•		•	-	-	-	-
		Room temperature set point limit		•		•	-		-	
eration trol		Antifreeze		•	-	•	-	-	_	-
		Outdoor unit low noise setting Remote control prohibition settin		•		•	-	-	-	-
	Individual management	Temperature upper and lower lim	t setting	•	-	•	-	-	-	-
	monogement	Filter sign reset		•	_	•	_		+	
	Other	Memory operation Pattern operation		•		•	-	-	-	-
		Web operation		•	_	•	-	-	-	-
Annual Schedule Special day setting				•		•	-	-		-
	On /off per day			72		72	-		<u> </u>	-
edule	On / off per week Day off			•04	-	504	-	-	-	-
	Min. unit of timer set	ting (Minutes)		10		10	-	-	-	-
	Low noise mode Wee			•	_	•	-	-	-	-
note	Web Operation Remote monitoring			•	_	•	-	-	-	-
nagemment	Remote operation co			•	-	-	•	-	-	-
	Remote function set			•	-	-	•	-	-	-
	Apportionment charge Tenant (block) settin			•		-	-	•		-
ctricity Irge	Common facilities apportionment setting			•	-	-	-	٠	-	-
ortionment	Rated power consumption allotment setting Individual calculation at cooling and heating			•	•*			•		-
		Electricity meter supported		-	•		-	•	-	-
	Indoor unit rotation			-	•	-	-	-	•	-
ergy	Peak cut control Outdoor unit capacit	v save			•		-	-	•	
ring	Record of energy sav	ing operation		-	٠	-	-	-	•	-
nagement		gy saving information er consumption monitor		-	•			-	•	-
	Electricity meter sup			_	•			_	•	
				•	-	-		-	-	•
	Monitor								-	•
	Control	nort		•		-	-		_	-
ntrol				-		•				-
ers	Control Database import/exp Automatic clock adju Multi language Refrigerant leakage	stment detection function	7 Ian	e guages	- - -	7 language	-	-	- - -	- - -
iers •: Available. – : 1 ersonal co	Control Database import/exp Automatic clock adju Multi language Refrigerant leakage Not available. *:Powe mputer syst	stment	7 Ian 7 Ian e is necessary, please cont	e guages	- - -	7 language		_ _ _		
ntrol hers •: Available. – : 1 ersonal co he required f	Control Database import/exg Automatic clock adju Multi language Refrigerant leakager Not available. *:Power <b>mputer syst</b> PC specificatio	em requirements ns are shown in the f	7 Ian r is necessary, please cont ollowing table. System Contro © 7 Home Premium (3	act the loca	— — — I FGL representative 4-bit) SP1, Wind	7 language				
htrol htrol Available. – : 1 ersonal con he required f herating system	Control Database import/exg Automatic clock adju Multi language Refrigerant leakager Not available. *:Power <b>mputer syst</b> PC specificatio	em requirements en calculation application softwar em requirements ns are shown in the f Microsoft® Window: Microsoft® Window: Supported language:	7 Ian r is necessary, please cont ollowing table. System Contro * 7 Home Premium (3 * 8.1 (32-bit or 64-bit * 10 Home (32-bit or ] English, Chinese, Fro	guages act the loca bller 12-bit or 6 ), Window 64-bit), W		7 language 2. ows® 7 Profess it or 64-bit) (32-bit or 64-	sional (32-bit or 64-b			
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hers	Control Database import/exp Automatic clock adju Multi language Refrigerant leakage: Not available. *:Poww <b>mputer syst</b> PC specificatio	stment detection function er calculation application softwar em requirements ins are shown in the f Microsoft® Window: Microsoft® Window: Microsoft® Window: Microsoft® Window: Supported language: Intel® CoreTM i3 2 GH 2 GB or more of free 1024 x 768 or higher r Ethernet port (for getting a Wodem (for getting a USB ports (Maximum (Required only for the - Maximum of 2 USB pr Maximum of 4 USB pr Maximum of req Microsoft® DirectX® 9	7 Ian 7 Ian 7 Ian 7 Ian 8 is necessary, please cont 9 Illowing table. 5 System Contro 9 T Home Premium (3 8 8.1 (32-bit of 64-bit 9 10 Home (32-bit or 64-bit 9 10 Home (32-bit or 64-bit 9 10 Home (32-bit or 64-bit 9 10 Home (32-bit of 64-bit 9 10 Home (32-bit) 9 10 Home (	equages act the loca i2-bit or 6 ), Window 64-bit), Wench, Gerr • 4 GB or • 4 GB or • 4 GB or • 4 GB or • 100 - 10		7 language 7 language ows® 7 Profess it or 64-bit) (32-bit or 64- anish, and Po ows® 7 [64-bi ows® 7 [64-bi ws® 7 [64-bi evs] (Re nection - Ma erface - 1 U	isional (32-bit or 64-b bit) lish t], Windows® 8.1, and hernet port (for getting idem (for getting access B ports (Maximum of 6 equired only for the Ser iximum of 4 USB ports SB ports is required for		rnet using LAN) or sing Public Teleph as VRF Controller) HITE-USB-KEY/Wit Network Interface	one Line) ouKey connecti e
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ntrol hers Available : 1 ersonal co ne required f berating system PU emory DD splay terface aphic accelerato ftware Echelon® U10 US	Control Database import/exp Automatic clock adju Multi language Refrigerant leakage: Not available. *:Powe PC specificatio	stment detection function er calculation application softwar er calculation application softwar em requirements ins are shown in the f Microsoft® Window: Microsoft® Window: Microsoft® Window: Supported language: Intel® CoreTM i3 2 GH 2 GB or more (for W 40 GB or more of free 1024 x 768 or higher I Ethernet port (for getting a Modem (for getting a USB ports (Maximum (Required only for the Maximum of 2 USB pr Maximum of 2 USB pr Maximum of uSB pr Maximum of reque Microsoft® DirectX® 9 Adobe® Reader® 9.0 co	7 Ian 7 Ian 7 Ian 7 Ian 8 is necessary, please cont 9 Ollowing table. 9 System Contro 9 T Home Premium (2 8 8.1 (32-bit or 64-bit 8 8.1 (32-bit or 64-bit 9 I Home (32-bit or 9 I English, Chinese, Fro 9 I English, Chinese, Fro 9 I I Home (32-bit) 9 Space 355 9 Server PC that works a 10 Server PC that works a 11 Server PC that works a 11 Server PC that works a 12 Server PC that works a 13 Server PC that works a 14 Server PC that works a 15 Server PC that works a 15 Server PC that works a 16 Server PC that works a 16 Server PC that works a 17 Server PC that works a 18 Server PC that w	guages act the loca act the loca biller i2-bit or 6 b), Window b(4-bit), Wench, Gerr • 4 GB or ret using L ing Public s VRF Cont ITE-USB-K elon® U10 he applicable		7 language 7 language 2. ows® 7 Profes it or 64-bit) (32-bit or 64- aanish, and Po ows® 7 [64-bi ows® 7 [64-bi Mo ows® 7 [64-bi Ho uSI (Re - Ma - 1U * The			rnet using LAN) or sing Public Teleph as VRF Controller) HITE-USB-KEY/Wit Network Interface	one Line) ouKey connecti e
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\*1: Software protection key to be inserted in a USB slot running System Controller or System Controller Lite. System Controller or System Controller Lite may only run on a PC with WHITE-USB-KEY. However, WHITE-USB-KEY is not required for remote VRF Explorer software.

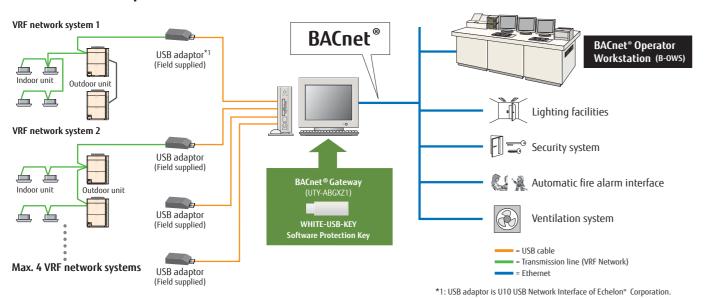
# BACnet<sup>®</sup> Gateway

# UTY-ABGXZ1

- It is possible to connect medium to large sized BMS to VRF network system via BACnet®, a global standard for open networks.
- A maximum of 1600 indoor units with 4 VRF network systems (a maximum of 400 indoor units & 100 outdoor units for one network system) can be connected to one BACnet® Gateway.
- It is possible to control or monitor VRF network system from BMS via BACnet® Gateway.
- Compatible with BACnet® (ANSI / ASHRAE-135-2014) application specific controller (B-ASC). • Compatible with BACnet®/IP over Ethernet.
- Scheduling function, Alarm & Event functions as well as Electricity Change Apportionment function are provided in BACnet<sup>®</sup> Gateway.
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.
- Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish.

### Functions

# Installation example



### Personal computer system requirements

		UTY-ABGXZ1
Operating system		Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1     Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit)     [Supported languages]     English, Chinese, French, German, Russian, Spanish, and Polish
CPU		Intel® CoreTM i3 2 GHz or higher
Memory		<ul> <li>2 GB or more (for Windows<sup>®</sup> 7 [32-bit])</li> <li>4 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup> 8.1, and Windows<sup>®</sup> 10)</li> </ul>
HDD		40 GB or more of free space
Display		1024 x 768 or higher resolution
Interface		Ethernet port (for getting access to the Internet using LAN)     USB ports (Maximum of 5 ports)     1USB port is required for WHITE-USB-KEY/WibuKey connection     - 1USB port is required for Echelon® U10 USB Network Interface     * Maximum number of required USB ports depends on the applicable system configurations.
Software		Adobe® Reader® 9.0 or later
•Echelon® U10 USB Netwo	ork Interface –	TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)
<packing list=""></packing>		
Name and shape	Quantity	Application

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Name and shape	Quantity	Application
WHITE-USB-KEY	1	Includes the software and manuals, license for BACnet <sup>®</sup> Gateway.

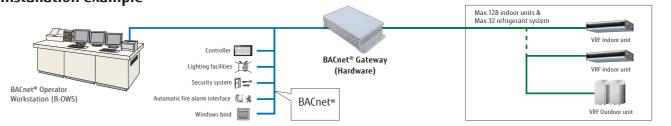
# BACnet<sup>®</sup> Gateway (Hardware)

# UTY-VBGX

- BACnet<sup>®</sup> Gateway enables to connect a BMS and FG VRF system.
- A maximum of 128 indoor units and 32 refrigerant system can be connected to a single BACnet<sup>®</sup> Gateway.
- Compatible with BACnet<sup>®</sup> (ANSI / ASHRAE-135-2012) application specific
- controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet.

# Functions

# Installation example



# Specifications

Model name	UTY-VBGX
Number of controllable indoor units	128
Number of controllable refrigerant system	32
Number of controllable VRF network	1
Number of connectable units / one VRF etwork	4

# Network Convertor for LONWORKS®

# UTY-VLGX

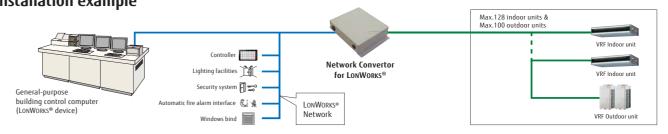
• For connection between VRF network system and a LONWORKS® open network for management of small to medium-sized BMS and VRF network system.

• The UTY-VLGX permits central monitoring and control of a VRF network system from a BMS through a LONWORKS® interface.

• Up to 128 Indoor units can be connected to one Network Convertor for LONWORKS®

# Functions

# Installation example



# Specifications

Model name		UTY-VLGX		
Power Supply		208-240V 50/60Hz, Single phase		
Power Consumption W		4.5		
Dimensions (H x W x D)	mm	67 × 288 × 211		
Weight	g	1,500		

4

1,600

WHITE-USB-KEY

(Software Protection Key)

Max, controllabl

400



Model name	UTY-VBGX	
Power Supply		100-240V 50/60Hz, single phase
Power Consumption W		4.6 (max)
Dimensions (H x W x D)	mm	59.6 × 270.4 × 176
Weight	g	1,200



manshinssion specifications (bms side)			
Transmission speed	78 kbps		
Transceiver	FT-X1 (Echelon® Corporation)		
Transmission way form	Free topology		
Terminal resistor	None (It attaches at the terminal of a network.)		

Transmission specifications (BMS side)

# **MODBUS®** Convertor

# UTY-VMGX

The MODOBUS Convertor allows a complete integration of air conditioners into MODBUS Networks.

- Compact and lightweight design
- Direct connection to MODBUS Network
- Up to 128 indoor units can be controlled in one MODBUS Convertor

• The MODBUS Convertor permits central monitoring and control of air conditioners from BMS or Central Controller.

# Functions



### Specifications

Model name		UTY-VMGX	
Power Supply		220-240V 50/60Hz	
Input power	W	Max. 2	
Dimensions (H x W x D)	mm	54 × 260 × 150	
Weight	a	1.100	

# **MODBUS®** Interface

# FJ-RC-MBS-1

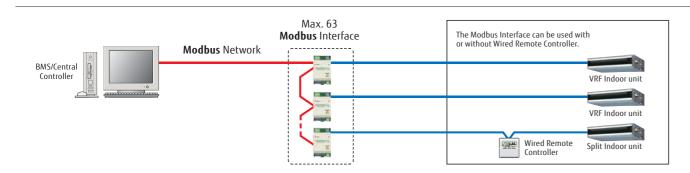
The Modbus Interface allows a complete integration of air conditioners into Modbus Networks.

• Simple installation due to small and compact size.

• No separate external power supply required.

• The Modbus Interface permits central monitoring and control of air conditioners from BMS.

## **Functions**



# **Specifications**

 Model name		FJ-RC-MBS-1
Dimensions (H x W x D)	mm	93 × 53 × 58
Weight	g	85

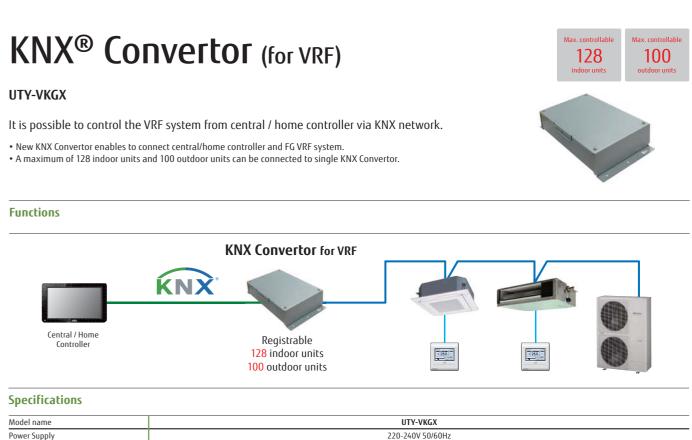
Max, controllable

100

128

AB

9



Model name		UTY-VKGX
Power Supply		220-240V 50/60Hz
Power Supply Input power	W	1.5
Dimensions (H x W x D)	mm	54 × 260 × 150
Weight	g	1,200

# **KNX®** Interface

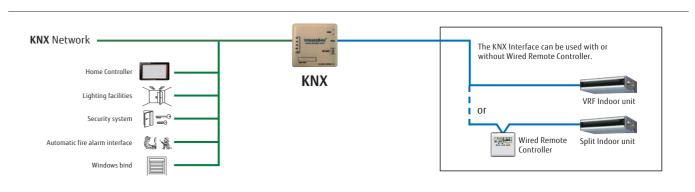
# FJ-RC-KNX-1i

The KNX Interface allows a complete integration of air conditioners with KNX Network systems.

• Simple installation due to small and compact size.

- No separate external power supply required (just KNX bus power).
- Can be used for single indoor units and group controlled (up to 16) indoor units

# Functions



# **Specifications**

Model name		FJ-RC-KNX-1i
Dimensions (H x W x D)	mm	70 × 70 × 28
Weight	g	70



# Wireless LAN Interface

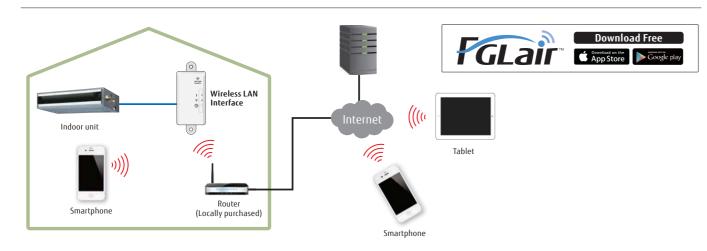
# UTY-TFSXZ1

- It is the most advanced solution to remotely manage an Air Conditioning system using
- all sort of mobile devices such as Smartphones, and tablets.
- No separate external power supply required
- Can be used for single indoor units and multi system indoor units



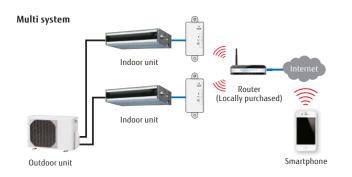
Max controllah

# Functions



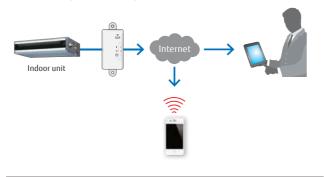
# Basic control

- Turning the units on and off
- Mode control (Heat, Cool, Dry, Auto, Fan)
- Fan speed setting
- Louver position (Airflow direction setting)
- Timer operation setting (Weekly timer)
- Economy mode setting



# Error display & E-mail notification

- Alerts e-mail notification
- Air conditioning malfunction display
- It enables rapid service response when error occurs.



Multiple air conditioning management

• Multiple air conditioning management at difference locations.

# **Network Convertor**

# UTY-VTGX (DC power supply type) UTY-VTGXV (AC power supply type)

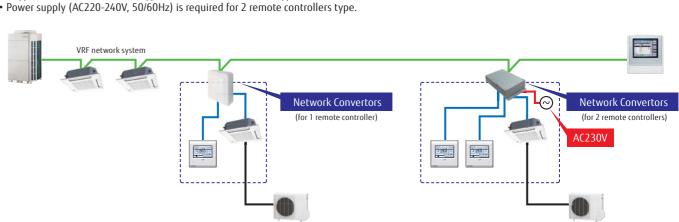
Compact remote controller provides access to basic functions

- The network convertors are required when connecting single split
- system to VRF network system. · Compact and light weight design
- Connectable to both types of 2-wire and 3-wire remote controllers

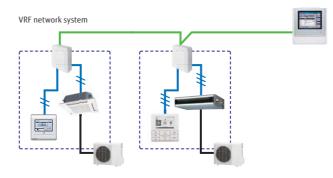
## Functions

# Installation example

- 2 types of 1 remote controller type and 2 remote controllers type are available.
- Power supply (AC220-240V, 50/60Hz) is required for 2 remote controllers type.



- 2-wire and 3-wire type of the wired remote controller can be connectable.
- Power supply (AC220-240V, 50/60Hz) is required for 2 remote controllers type.



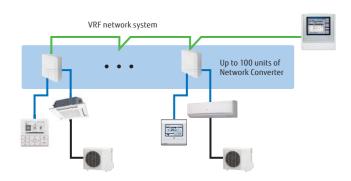
### Specifications

Model name		UTY-	VTGX	UTY-VTGXV		
Power Supply		polar 3-wire DC12V	non-polar 2-wire DC12V	220-240V 50/60Hz, Single phase		
Input power	W	Max	. 1.2	Max. 3		
Dimensions (H x W x D)	mm	140 × 1	17 × 43	54 × 260 × 150		
Weight	g	25	50	1,100		

Specifications		
Model name		UTY-TFSXZ1
Dimensions (H x W x D)	mm	71 × 38 × 15
Weight	g	35



• A central control can be provided for the single split systems. (Up to 100 units of Network Convertor is connectable in one VRF network system)



# **External Switch Controller**

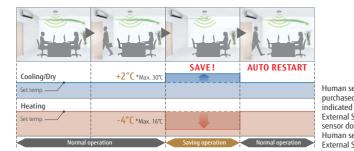
# UTY-TERX

- In combination with a field supply Card-Key Switch or other sensor, the External Switch Controller allows control of the ON / OFF, Room temperature, Fan speed and Master control functions. This makes this product suitable for installations such as hotel rooms.
- Card-key or other sensor switches are available as a locally purchased parts.
- The set temperature can be specified at two points for cooling and heating individually (4 points).

# Functions

# Installation example

Human sensor catches movements of people in a room, and operates with lower capacity when people come back to the room, it automatically returns to previous operation mode.



Human sensor equipment needs to be purchased locally. The above example indicated that a signal is sent to this External Switch Controller if human sensor does not detect for 20 minutes. Human sensor is not mounted on the External Switch Controller.

Max. controllat

# Specifications

Model name		UTY-TERX			
Power Supply		DC 6.5-16V			
Dimensions (H x W x D)	mm	140 × 117 × 43			
Weight	g	250			

DC12V is supplied by indoor unit.

# Signal Amplifier

# UTY-VSGXZ1

Functions

- Transmission Line length can be extended up to 3,600m with multiple Signal Amplifiers.
- Up to 40 signal amplifiers can be installed in a VRF network system.
- A signal amplifier is required,
- When the total wiring length of the transmission line exceeds 500m.
   When the total number of units on the transmission line exceeds 64.



# Installation example

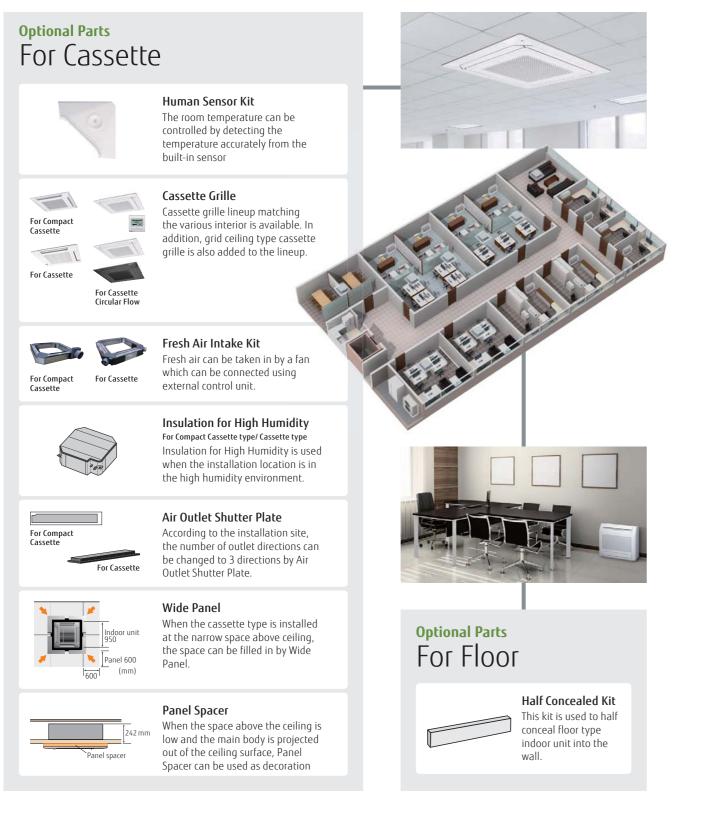
# Specifications

Model name		UTY-VSGXZ1			
Power Supply		208-240V 50/60Hz, Single phase			
Input power W		4.5			
Dimensions (H x W x D)	mm	67 × 288 × 211			
Weight	g	1,500			



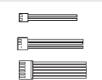
# **OPTIONAL PARTS OVERVIEW**

Various optional parts are provided to install the selected indoor unit properly according to the environment.







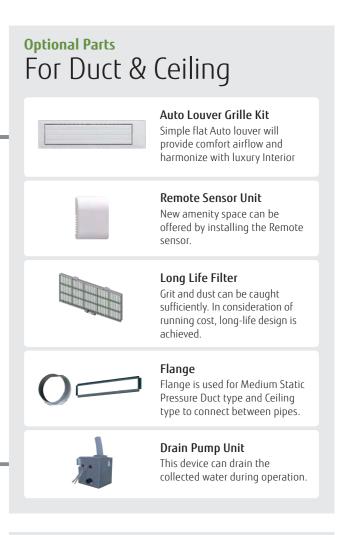


External Connect Kit & Set These wires can connect between the product PCB and external device.

### Connection Units Connection units are provided to separate the pipes at the connection of multiple indoor

units in Multi type or VRF system. **External Power Supply Unit** 

External Power Supply Unit can protect the units in the system even if some powers of indoor units are shut down in the system.



# **Connection Parts**



For Wall Mounted type



For Wall Mounted type



For Duct and Cassette type



For wall mounted type, this kit is required when External Connect kit & Set or wired remote controller is connected to indoor unit.



# External Input and Output PCB

For Wall mounted, Duct, or Cassette type, these parts are required when external input and output function is used.



# **External Input and Output** PCB Box & Bracket

These are the box and bracket for installing the External input and output PCB



Models UTZ-GXXA



# Auto Louver Grille Kit

Models UTD-GXTA-W UTD-GXTB-W UTD-GXTC-W

# Feature

# **Flexible Control**

# • Operation with indoor unit

Auto Louver can be operated by synchronizing remote controller of indoor unit.

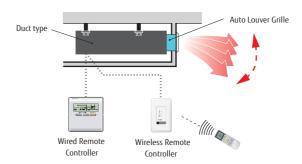
### • UP and Down auto swing

• Auto airflow direction and auto swing

4 steps selectable

### • Auto-closing louver

When operation of indoor unit is stopped, the louver will automatically close.



# **Specifications**

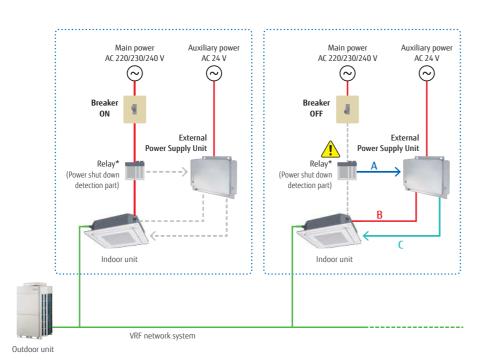
Model name			UTD-GXTA-W	UTD-GXTB-W	UTD-GXTC-W				
Applicable Indo	or Unit		ARXD04GALH ARXD007/009/012/014GLEH ARXK004/007/009/012/014GLEH	ARXD018GLEH ARXK018GLEH	ARXD024GLEH ARXK024GLEH ARXN009/012/014GLBH				
Power source				Connecting with Control box of indoor unit					
Fixing of Auto L	ouver Grille			Screw fixing to Flange or Square Duct					
Extension Squa	re Duct Limit		1.0m (Max. duct length between indoor unit and Grille)						
Dimensions (H × W × D) mm			180 × 683 × (84+9)	180 × 683 × (84+9) 180 × 883 × (84+9) 180					
	Net		2.0	2.5	3.0				
Veight	Gross	- kg	3.0	3.5	4.0				
Color			White						
Louver Motor				Stepping Motor					
Accessories			Fitting Flame, etc.						
	Castina	°C	18 to 32						
Operation Range	Cooling	% RH	80% or less						
longe	Heating	°C	16 to 30						

\*: The Auto Louver Grille Kit can also be installed to ARXD007/009/012/014/018/024GLEH revision code B models. Please refer to the Design & Technical manual for "revision code" details.

# Feature

# **High Reliability**

- A: Main power shut down can be detected at power shut down detection part.
- B: The power for indoor unit expansion valve drive, etc. is supplied. (DC 12V, 5V)
- C: Power supply from External Power Supply Unit is notified.



### Note

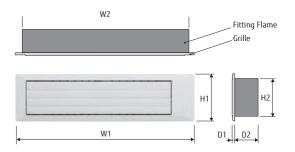
When changing the power supply voltage to AC24V, use a power transformer with an insulation structure equivalent to CLASS 2.
 Indoor units that are powered off and driven by an External Power Supply Unit are handled in the same manner as operation off units in the electricity charge apportionment function. Since standby power may be charged to them, the electricity charge apportionment result for them may not be 0.

# Specifications

Model name		UTZ-GXXA				
Power Supply		AC 24 V 50/60 Hz, single phase				
Dimensions (H × W × D) mm		65 × 186 × 178				
Weight	g	500				



# Dimensions



Unit: mm

						onia min
Model Name	W1	W2	H1	H2	D1	D2
UTD-GXTA-W	683	645				
UTD-GXTB-W	883	845	180	148	9	84
UTD-GXTC-W	1,083	1,045				

# **CONTROL SYSTEMS LIST**

# Controllers / Interface

	s / Interrace																		
			(ac	sette		Indoor unit Duct								ıct	Flo	0.		Indoo	or unit
	Refrigerant	3D Flow	Compact Grid type /Standard type	Circular Flow (Slim)	Circular Flow (Large)	Mini (With drain pump)	SI (With dra	im ain pump)	Medium Static Pressure	High Stati	c Pressure		Large Airflow Duct (Compact)	Large Airflow Duct (Large)		EEV external	Ceiling/ Floor	Ceiling	
Туре	R410A	AUXS 018/024 GLEH	AUXB 004/007/009/ 012/014/018/ 024GLEH	AUXN 009/012/014 GLAH, AUXM 018/024/030 GLEH	AUXK 018/024/030/ 034/036/045/ 054GLEH	ARXK 004/007/009/ 012/014/018/ 024GLEH	ARXD 04GALH	ARXD 007/009/012/ 014/018/024 GLEH	ARXA 024/030/036/ 045GLEH	ARXC 45/60GATH	ARXC 036/072/090/ 096GTEH		ARXN 009/012/014/ 018/024/030 GLBH	ARXN 18/24/30/ 34/36/45 GATH	AGHA 004/007/ 009/012/014 GCEH	AGHE 004/007/ 009/012/014 GCEH	ABHA 012/014/018/ 024GTEH	ABHA 030/036/045/ 054GTEH	004
Controllers Wired	Wired					UTY-RNRGZ3									UTY-RNRGZ3				
Remote Controller	19 10 10 10 10 10 10 10 10 10 10 10 10 10					UTY-	RLRG											UTY-	• -RLRG
Simple Remote Controller	2-wire type			UTY-RSRG UTY-RHRG			UTY-RSRG, UTY- RHRG, UTY-RSKG, UTY-RHKG	UTY- UTY-	RSRG RHRG	UTY-RSRG, UTY-RHRG, UTY-RSKG, UTY-RHKG	UTY-RSRG UTY-RHRG		UTY-RSRG,	UTY-RHRG, UTY-RHKG				UTY- UTY-	-RSRG -RHRG
Wireless Remote Controller						UTY-I	LNHG	1									UTY-LNHG		
Group Remote Controller						UTY-CGGG +	UTY-VGGXZ1											UTY-CGGG +	• UTY-VG
Central Remote Controller						UTY-D	CGGZ1											UTY-D	• DCGGZ1
Touch Panel Controller			UTY-DIGGZ1									UTY-D	● DTGGZ1						
System Controller, System Controller Lite			UTY-APGX21, UTY-ALGX21								UTY-APGXZ1,	● I, UTY-AL							
BACnet Gateway						UTY-ABGXZ	1, UTY-VBGX											UTY-ABGXZ	● 21, UTY-V
Network Convertor for LONWORKS	$\checkmark$					UTY-	VLGX											UTY-	• -VLGX
MODBUS Convertor							VMSX											UTY-1	• -VMSX
MODBUS Convertor						UTY-	/MGX											UTY-V	• -VMGX
KNX Convertor			UTY-VKSX UTY-								• -VKSX								
KNX Convertor						UTY-	VKGX											UTY-	• -VKGX
Wireless LAN Interface		UTY-TFSXZ1		UTY-	FSXZ1										UTY-T	FSXZ1			
External Switch Controller						UTY-	TERX											UTY-	• -TERX
Network Convertor for Single split	DC Power Supply Type					UTY- UTY-	VTGX /TGXV											UTY- UTY-	• -VTGX -VTGXV

r unit Wall Mounted										
_	EEV external	_	EEV external	_	_					
ASHA 004/007/009 GTEH	ASHE 004/007/009 GTEH	ASHA 012/014GCEH	ASHE 012/014GCEH	ASHA 18/24GBCH	ASHA 030/034GTEH					
NRGZ3										
RLRG										
RSRG RHRG				UTY-RSRG, UTY-RHRG, UTY-RSKG, UTY-RHKG	UTY-RSRG UTY-RHRG					
LNHG										
UTY-VGGXZ1										
CGGZ1										
TGGZ1										
UTY-ALGXZ1										
1, UTY-VBGX										
VLGX										
VMSX										
/MGX										
VKSX										
VKGX										
	UTY-T	FSXZ1			● UTY-TFSXZ1					
TERX										
VTGX /TGXV										

# **OPTIONAL PARTS LIST**

Others

Uthers																	
			(200	sette		Indoo	or unit		uct				Duct	FI	001	Indoo	or unit
_	Refrigerant	3D Flow	Compact Grid type /Standard type	Gamlas Flam	Circular Flow (Large)	Mini (With drain pump)		im iin pump)	Medium Static Pressure	High Stal	ic Pressure	Large Airflow Duct (Compact)	Large Airflow Duct (Large)		EEV external	- Floor / Ceiling	
Туре	R410A	AUXS 018/024GLEH	AUXB 004/007/009/ 012/014/018/024 GLEH	AUXN 009/012/014 GLAH, AUXM 018/024/030 GLEH	AUXK 018/024/030/ 034/036/045/ 054GLEH	ARXK 004/007/009/ 012/014/018/024 GLEH	ARXD 04GALH	ARXD 007/009/012/ 014/018/024 GLEH	ARXA 024/030/036/045 GLEH	ARXC 45/60GATH	ARXC 036/072/090/096 GTEH	ARXN 009/012/014/ 018/024/030 GLBH	ARXN 18/24/30/ 34/36/45 GATH	AGHA 004/007/ 009/012/014 GCEH	AGHE 004/007/ 009/012/014 GCEH	ABHA 012/014/018/024 GTEH	030
IR Receiver Unit		UTY-TRHX			• -LBHXD	UTY-TRHX	UTB-YWC		TRHX	UTB-YWC	UTY-TRHX	UTB-YWC					
Human Sensor Kit	0				-shzxc												
Remote Sensor Unit	New amenity space can be offered by installing the Remote sensor.							UTY-	• XSZX			UT	• Y-XSZX				
Cassette Grille	UTG-UKGA-B UTG-UKGCW UTG-UFGCW UTG-UFGE-W UTG-UFGCW	UTG-USGA-W	UTG-UFGE-W UTG-UFGC-W	UTG-	UKGC-W UKGA-B												
Auto Louver Grille Kit							UTD-GXTA-W, UTD-GXTB-W (18), UTD-GXTC-W (24)					UTD-GXTC-W (009/012/014)					
Long Life Filter									UTD-LF25NA	UTD-	■ LF60KA 0/036)	UTD-LF25NA(018) UTD-LFNA(024/030)					
Flange	0								UTD-SF045T UTD-RF204			UTD-SF045T(018) UTD-RF204(018)					
Drain Pump Unit									UTZ-PX1NBA			UTZ-PXINBA(018)					ι
Wide Panel	Fanel 600			UTG-A	AKXA-W												
Panel Spacer	Panel spacer				● BKXA-W												
Fresh Air Intake Kit <sup>*1</sup>	For Compact Cassette		UTZ-VXAA	UTZ	• Z-VXRA												
Air Outlet Shutter Plate	For Compact Cassette For Cassette		UTR-YDZB		• R-YDZK												
Insulation for High Humidity	For Compact Cassette type/ Cassette type		UTZ-KXGC	UTZ	₽-KXRA												
Half Concealed Kit	This kit is used to half conceal floor type indoor unit into the wall.													UTF	e-sta		
External Power Supply Unit				UTZ-GXXA	·			UTZ-	GXXA		UTZ-GXXA					UTZ-	GXXA

it											
		Wall M	ounted								
Ceiling	_	EEV external	_								
ABHA 030/036/045/054 GTEH	ASHA 004/007/009 GTEH, ASHA 012/014GCEH	ASHE 004/007/009 GTEH, ASHE 012/014GCEH	ASHA 18/24GBCH	ASHA 030/034GTEH							
UTD-RF204											
UTR-DPB24T											
A				UTZ-GXXA							

# **CONTROL SYSTEM PARTS**

Controllers			
For Individual Control			
Wired Remote Controller (Touch Panel ) UTY-RNRGZ3	Wired Remote Controller UTY-RLRG		Simple Remote Controller UTY-RSRG With operation mode
Constitution in the second sec			
Simple Remote Controller	Wireless Remote Controller		IR Receiver Unit
UTY-RHRG	UTY-LNHG		NEW UTY-TRHX
Without operation mode			For 3D Flow Cassette type / Duct type
IR Receiver Unit	IR Receiver Unit		Human Sensor Kit
UTB-YWC	UTY-LRHGB1		UTY-SHZXC
For All Duct types except Large Airflow Duct(Large type)	For Cassette type		For Circular Flow Cassette type
. ⊗. ₩ #0		2001 2000	0

# Convertors / Adaptors For External device BACnet<sup>®</sup> Gateway Software Network Convertor for LonWorks® UTY-ABGXZ1 UTY-VLGX WHITE-USB-KEY (Software Protection Key) MODBUS<sup>®</sup> Interface KNX<sup>®</sup> Convertor for VRF FJ-RC-MBS-1 UTY-VKGX 222 III ACUNE IntesisBox" -----Wireless LAN Interface UTY-TFSXZ1 0 • ♥• 0

# For Centralized Control

Group Remote Controller UTY-CGGG	Central Remote Controller NEW UTY-DCGGZ1	Touch Panel Controller UTY-DTGGZ1
		Option UTY-PTGXA
System Controller Lite Software	System Controller Software	
UTY-ALGXZ1	UTY-APGXZ1	
WHITE-USB-KEY (Software Protection Key)	WHITE-USB-KEY (Software Protection Key)	
Option UTY-PLGXR2 UTY-PLGXA2 UTY-PLGXA2 UTY-PLGXX2	Option UTY-PEGXZ1	

# For System expansion Network Convertor for single split UTY-VTGX DC power supply type Image: Signal Switch Controller UTY-TERX

MODBUS <sup>®</sup> Convertor for VRF	
UTY-VMGX	
 KNX <sup>®</sup> Interface	
FJ-RC-KNX-1i	
	HatesiaBox"
I	
Network Convertor	
for Group Remote Controller UTY-VGGXZ1	

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# CONTROL SYSTEM PARTS

# Others

Flange (Round)		Flange (Square)	Remote Sensor Unit
UTD-RF204		UTD-SF045T	UTY-XSZX
For Medium Static Pressure	Duct type / Ceiling type	For Medium Static Pressure Duct type	For All Duct type
	0		New amenity space can be offered by installing the Remote sensor.
Long-Life Filter		Auto Louver Grille Kit	Drain Pump Unit
UTD-LF25NA	UTD-LF60KA	UTD-GXTA-W (For ARXD04/07/09/12/14GALH, ARXK04/07/09/12/14GCLH)	UTZ-PX1BBA
For Medium Static	For High Static	UTD-GXTB-W (fof arxd18galh, arxk18gclh) UTD-GXTC-W (fof arxd24galh, arxk24gclh, arxn009/012/014glbh)	For Low Static Pressure Duct type
Pressure Duct type	Pressure Duct type	For Slim Duct type / Mini Duct type	UTZ-PX1NBA
		roi sinii bacc cype / mini bacc cype	For Medium Static Pressure Duct
Wide Panel		Panel Spacer	Insulation Kit for High Humidity
UTG-AKXA-W		UTG-BGYA-W	UTZ-KXRA
For Cassette type		For Cassette type	For Cassette type
	× /	(mm)	UTZ-KXGC
	oor unit 950 inel 600 600 (mm)	Panel spacer 50	For Compact Cassette type
Fresh Air Intake Kit		Air Outlet Shutter Plate	Air Outlet Shutter Plate
UTZ-VXAA	UTZ-VXRA	UTR-YDZB	UTR-YDZK
For Compact Cassette type	For Cassette type	For Compact Cassette type	For Cassette type
"		Shuts the air outlet when only using as 3 blow out.	Shuts the air outlet when only using as 3 blow out.
* Not applicable for VRF V-II tropic	al and V-III tropical series		
		Half Concealed Kit	External Power Supply Unit
Drain Pump Unit		UTR-STA	NEW UTZ-GXXA
UTR-DPB24T			
		For Floor type	For All type
UTR-DPB24T		For Floor type This kit is used to half conceal floor type indoor unit into the wall.	For All type

Panels

Cassette Grille	Cassette Grille	
UTG-UFGE-W	UTG-UFGC-W	
For Compact Grid type	For Compact Cassette type	
Cassette Grille	Cassette Grille	
UTG-UKGC-W	UTG-UKGA-B	
For Circular Flow Cassette type	For Circular Flow Cassette	type
Communication system: External Connect K	it	
	UTY-XWZXZD	
UTY-XWZXZB	UTY-XWZXZE	
UTY-XWZXZC		
For RB unit	For Central Remote	Contro
UTY-XWZXZ6	UTY-XWZXZ7	
UTY-XWZXZB	UTY-XWZXZ8	
	UTY-XWZXZA	



	For Outdoor unit	
	UTY-XWZXZ6	
	UTY-XWZXZ9	
	UTY-XWZXZF	
troller	For Touch Panel Co	ontroller
troller	For Touch Panel Co	ontroller
troller		ontroller

# **FUNCTION LIST**

# External Input and Output Function/External Connect Kit/Communication Kit

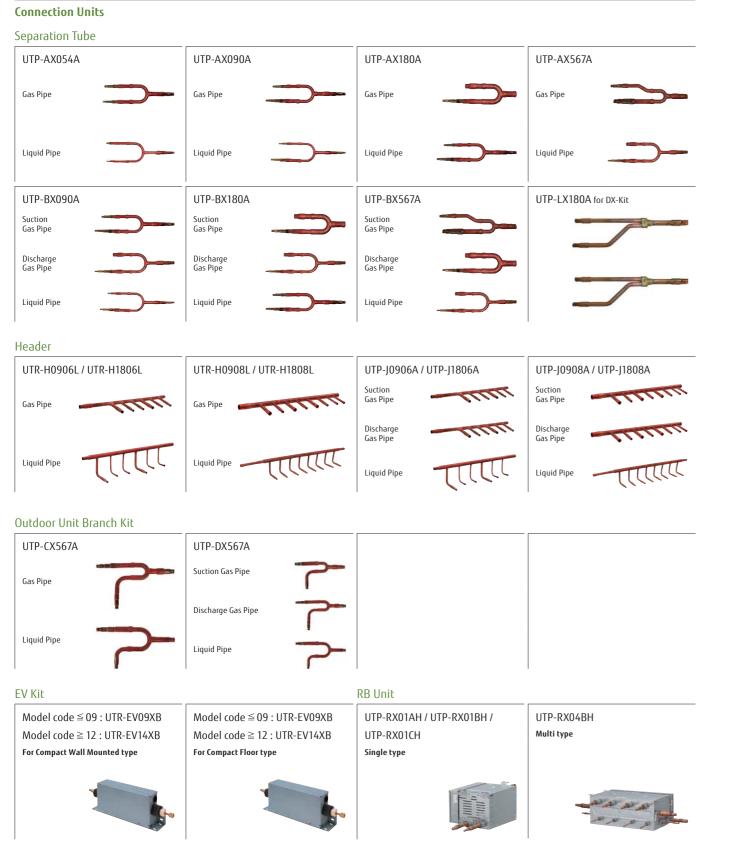
		T	n/Externa	Connect i	(It/Commu	incución is	Indoor unit									1-1	ar unit			
			Cassette					uct			FI	100		Indoor unit Wall Mounted						
	Refrigerant	3D Flow	Compact Grid type / Standard type	Circular Flow	Mini (With drain pump)	Slim (With drain pump)	Medium Static Pressure	High Static Pressure	Large Airflow Duct (Compact)	Large Airflow Duct (Large)	_	EEV external	Floor	/ Ceiling	-	EEV external		_	J-IIIL	J-111
Туре	R410A	AUXS 018/024 GLEH	AUXB 004/007/009/ 012/014/018/ 024GLEH	AUXN 009/012/014 GLAH, AUXM 018/024/030 GLEH, AUXK 018/024/030/ 034/036/045/ 034/036/045/ 054GLEH	ARXK 004/007/009/ 012/014/018/ 024GLEH	ARXD 007/009/012/ 014/018/024 GLEH, ARXD 04GALH	ARXA 024/030/036/ 045GLEH	ARXC 036/072/090/ 096GTEH, ARXC 45/60GATH	ARXN 009/012/014/ 018/024/030 GLBH	ARXN 18/24/30/ 34/36/45 GATH	AGHA 004/007/ 009/012/014 GCEH	AGHE 004/007/ 009/012/014 GCEH	ABHA 012/014/018 024GTEH	ABHA 030/036/045/ 054GTEH	ASHA	ASHE 004/007/009 GTEH, ASHE 012/014GCEH	ASHA 18/24GBCH	ASHA 030/034GTEH	AJH 072/090/108/ 126/144/162 LELAH	AJH 040/045/054 LBLAH, AJH 040/045/054 LELAH
Operation / Stop		UTY-XWZXZD     UTY-XWZXZB     UTY-XWZXZB																		
All On / All Off																				
Batch Stop																				
Forced Stop			1	1	1	1	UTY-XWZXZE     UTY-XWZXZE	) }	1	1	1	1			• UTY O UTY	-XWZXZD -XWZXZB	1	1		
Emergency Stop							<ul> <li>UTY-XWZXZE</li> <li>UTY-XWZXZE</li> </ul>	) }							• UTY O UTY	-XWZXZD -XWZXZB				
Forced Thermosta	it off						UTY-XWZXZE     UTY-XWZXZ7								• UTY O UTY	-XWZXZE -XWZXZ7				
Low Noise Mode O	peration																			1
Cooling/Heating Pr	riority																			
Outdoor Unit Oper	ation Peak Control																			
Power Usage Infor Electricity Meter	mation from																			
Output Operation Status		UTY-XWZXZC      UTY-XWZXZC																		
Error Status		• UTY-XWZXZC																		
Indoor Unit Fun Op	peration Status	• UTY-XWZXZC																		
Auxiliary Heater O	utput					• UTY	-XWZXZC													
Base Heater																				<ul> <li>UTY-XWZXZ</li> </ul>

\*2: Touch Panel Controller has these functions for Dry contact and Apply voltage, however, above External Connect Kit is not necessary because Touch Panel Controller has an external input terminal block.

	Outdo	or unit	Conti	Other			
	J-IIS	V-III	V-III Tropical	VR-II	Central Remote Controller	Touch Panel Controller	RB Unit
154	AJH 040/045/054 LCLAH	AJH 072/090/108/ 126/144/162 LNLBH	AJH 072/090/108/ 126/144/162 LALBH	AJHA 072/090/ 108/126/144 GALH	UTY-DCGGZ1	UTY-DTGGZ1	UTP-RX01AH UTP-RX01BH UTP-RX01CH UTP-RX04BH
					●UTY-XWZXZ7 OUTY-XWZXZ8	●*2 ○*2	
	• UTY	-XWZXZ6					
	• UTY	-XWZXZ6			●UTY-XWZXZ7 OUTY-XWZXZ8	●*2 ○*2	
	• UTY	-XWZXZ6					
	UTY-XWZXZ	6					●UTY-XWZXZ6 OUTY-XWZXZB
	• UTY	-XWZXZ6					
	• UTY	-XWZXZF				●*2 ○*2	
	o uty	-XWZXZ6			outy-xwzxza	outy-xwzxza	
	o uty	-XWZXZ6			outy-xwzxza	outy-xwzxza	
ZXZ	9		UTY-XWZXZS	9			

•: Dry Contact O: Apply Voltage

# **SEPARATION TUBE etc.**



# Specifications

Separation Tube										
Model name		UTP-AX054A UTP-AX090A		UTP-AX180A		UTP-AX567A				
Total cooling capacity of indoor unit	kW	19.6 or less		28.0 or less 28.1 to 56.0			56.1 or more			
Model name		UTP-BX090A		UTP-B	X180A		UTP-BX567A			
Total cooling capacity of indoor unit	kW	28.0 or less		28.1 to 56.0		56.1 or more				

### Header

Model name	3-6 Bra	inches	UTR-H0906L	UTR-H1806L		
	3-8 Branches		UTR-H0908L	UTR-H1808L		
Total cooling capacity of	indoor unit	kW	28.0 or less	28.1 to 56.0		
	3-6 Branches		UTP-10906A	UTP-[1806A		
Model name	3-8 Branches		UTP-J0908A	UTP-J1808A		
Total cooling capacity of	indoor unit	kW	28.0 or less	28.1 to 56.0		

# Outdoor unit Branch kit

Model name		UTP-CX567A (for V-III / V-III Tropical)	UTP-DX567A (for VR-II)
Model name	2 outdoor units	1	1
Model hame	3 outdoor units	2	2

# EV Kit

Model name	UTR-E	V09XB	UTR-E	V14XB
Application Model	ASHE004GTEH ASHE007GTEH ASHE009GTEH	AGHE004GTEH AGHE007GTEH AGHE009GTEH	ASHE012GCEH ASHE014GCEH	AGHE012GCEH AGHE014GCEH

# RB Unit

Model name			Multi type		
Number of Outdoor unit		UTP-RX01AH	UTP-RX01BH	UTP-RX01CH	UTP-RX04BH
Power source	V/Ø/Hz		230/	/ 1 / 50	
Input power	w	17	24	31	96
Number of branches		1	1	1	4
Maximum capacity of connectable indoor units(Q)	kW	Q ≦ 8.0	Q ≦ 18.0	Q ≦ 28.0	Q≦56.0*1
Maximum capacity of connectable indoor units per branch(Q)	kW	Q≦8.0	Q ≦ 18.0	Q ≦ 28.0	Q≦18.0
Maximum number of connectable indoor units per branch		3	8	8	8
Dimensions (H×W×D)	mm	198 × 298 × 268	198 × 298 × 268	198 × 298 × 268	260 × 658 × 428

\*1: In case of two RB units connected in series ( total 8-branches ), maximum capacity of connectable indoor units is up to 56.0kW.

# SUPPORT

maintenance.

Product Information Seek Technical Information Seek Model Selection Verification Installation

AIRSTAGE<sup>™</sup> SUPPORT AIRSTAGE<sup>™</sup> / RAC SUPPORT TOOL QUICK SERVICE & MAINTENANCE **SERVICE TOOL** WEB MONITORING TOOL

# Our know-how supports you not only during the product release but also from guiding implementation to product

		In	form	natio	n M	ateri	al				То	ol	
		Brochures		Operating Manual	Design & Technical Manual								Mobile Technician
·	•												
					•	•							
					•		•	•					
					•				•				

# AIRSTAGE<sup>™</sup> SUPPORT

Fujitsu General provides a variety of product and technical information to engineers and consultants, and also conducts new product research and design support activities. We provide a wide range of support to maintain high quality from design to installation.

# Training

Fujitsu General has many training facilities around the world that regularly conduct specialized product, technical, and service training. These research facilities also support the development of people with high technical capability.

### Features

- Designing AIRSTAGE<sup>™</sup> Systems
- Control System on-site training



# **Technical information**

We provide information and tools that are useful for air conditioning system design, such as unit performance data and tools that make model selection and estimation easy.

# Features

- Design & Technical Manual
- Model Selection & Estimation
- Certificate Data
  2D/3D CAD Data
- 20/30 CAD Data

# **Product information**

New product information is provided in the form of documents and movies for every new model released. These can be downloaded from a private section of our website. To access this website, please contact your Fujitsu representative.

### Features

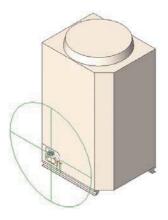
- Product News
- Brochures & All Manuals
- Feature Promotion Movie

# **Technical support**

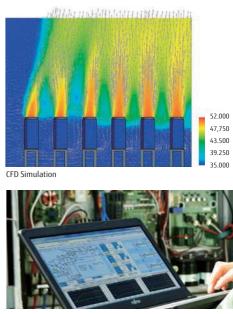
Technical support is provided at every stage from design to installation to assist in providing the most suitable air conditioning solution.

### Features

- CFD Simulation
- Guide line
- Commissioning Support



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Commissioning Support

# AIRSTAGE<sup>™</sup> /RAC SUPPORT TOOL

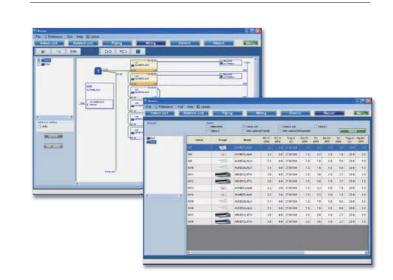
Put the charts and pens away and design your projects on your computer with ease using the Design Simulator. Everything from selecting indoor and outdoor units, allocating controls and optional parts to designing the piping and wiring systems is made easier using the program's built-in features.

Once your project is designed take advantage of the Export functions to easily get materials lists, product specifications, refrigerant calculations and more - it'll even export to Word, Excel, or Acrobat formats, and group the relevant CAD data for your project.

# **Design Simulator**

# Automatically create model selection information

- Each unit can be automatically set by entering the required performance, type, and temperature conditions for each indoor unit and then dragging and dropping into the outdoor unit.
- Piping and wiring diagrams can be created automatically and it is easy to set branches, grouping, and options.
- The additional refrigerant charging amount is automatically calculated when the pipe length is entered.
- It is also easy to set the remote controller groups, central controller and converters.
- The equipment list including the equipment information is created automatically.



# BIM Building Information Modeling

Fujitsu General provides the Building Information Modeling (BIM) object models and contents for our VRF system and some products to the architect, designer and contractor using Autodesk® Revit® technology from our Website and Autodesk® Seek Website, etc.

# 3D and 2D product data

We provide 3D data that closely resemble the actual product appearance. 2D CAD design operations are supported and 2D display is also provided. The data can also be output in other formats, such as DXF and DWG, which are used by other design CAD.

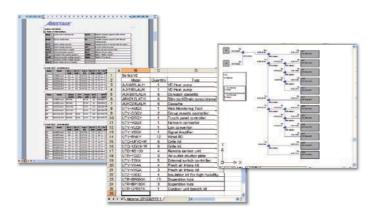
# Installation limitation

The equipment installation limitation range is shown. Installation requirements, such as distance from the wall, is automatically displayed to make it easy to produce highly reliable layout designs.

# Output the format that matches the application

The information specific to your project can be exported in a number of industry standard file formats.

- Word format (rtf)(doc)
- Excel format (csv)
- Acrobat format (pdf)
- Auto CAD format (DXF)
- 2D Data (DXF)
- 3D Data (RFA)

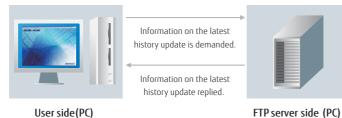


# Update your Design Simulator

Other information, such as symbols showing the airflow direction that are required for installation drawings, is built in and can be automatically reflected in 2D drawings. Installation drawings can be created easily.

# Update your Design Simulator

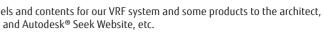
Database can be easily updated online using AutoUpdate function through FTP.

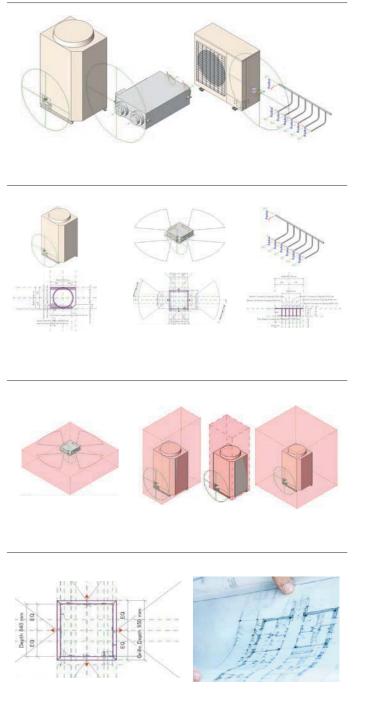




Product specifications & link information

Contains the basic information required for air conditioner design, including unit size, capacity, input power, noise, and airflow rate. These data can be procured from the Fujitsu General Website, Design Simulator, and Autodesk<sup>®</sup> Seek Website.





# **QUICK SERVICE & MAINTENANCE**

If trouble should occur in a unit or system, abundant support tools such as trouble code display at the product, Service Tool that allows checking of the detailed status of the entire system, and remote monitoring tool that uses the internet, etc. support quick service and maintenance anywhere and at any time.

# Mobile troubleshooting tool for iPhone & Android



We will release an App of troubleshooting tool for iPhone, iPod touch and other Apple products Android products.. This application is a troubleshooting tool for Fujitsu General air conditioner (RAC/PAC, VRF, ATW, FGLair, R32 calculation of allowable refrigerant capacity)

It helps you to check air conditioner condition. Error code check, Troubleshooting, and Sensor check are available.



# Easy maintenance & monitoring

# Design for easy maintenance

Design for easy maintenance

The air conditioner operating status and trouble status of the detailed are displayed at the 7-segment of the outdoor unit PCB or on the remote controller screen.

The unit status can be checked rapidly and quick response is also possible.

- Operation mode status
- Discharge temperature/Pressure status
- Compressor operation indication
- Address/Type/Number of outdoor unit
- Error code.

# Error diagnosis by Service Tool

Error diagnosis by Service Tool The unit status details for VRF system can be checked on PC screen by connecting Service Tool. Quick countermeasures can be taken

- Operation status/control
- Monitoring operating condition
- Monitoring sensor data
- Indication of trend graph
- Error history
- Indication of refrigerant circuit diagram
- Automatic operation check for refrigeration cycle

# **Remote monitoring**

VRF system operating status and trouble status details can be constantly and remotely monitored over the Internet, etc. Rapid cooperation with the service personnel are also possible.



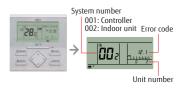
Wired Remote Controller (Touch panel) Error status/Error history

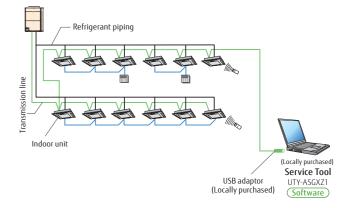


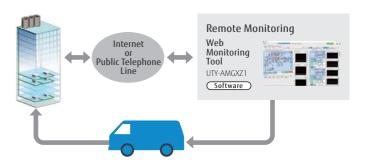




Wired Remote Controller







# **SERVICE TOOL**

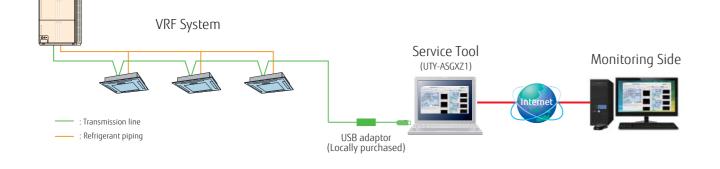
# UTY-ASGXZ1

### Extensive monitoring and analysis functions for installation and maintenance

- Operation status can be checked and analyzed to detect even the smallest abnormalities
- Storage of data on system operation status on a PC allows access even from off site.
- Up to 400 indoor units (a single VRF network system) can be controlled and monitored for large scale buildings or hotels
- This software can be connected to any point of transmission line with USB adaptor (locally purchased)
- \* The saved data can be displayed offline. However, the data saved by the following model cannot be displayed.
- UTR-YSTB/UTR-YSTC (Service Tool)
- UTR-YMSA (Web Monitoring Tool)

Functions

# System Over View



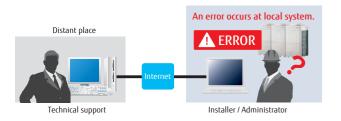
# Automatic operation check for refrigeration cycle

After product installation, operation check can be performed automatically. Self-diagnosis function automatically judges whether each sensor value is normal, so the operation check work can be reduced. The diagnosis can also be output as a report.



# Remote technical support & maintenance

On-site check screen can be shared with the skilled person in a distant place. When visiting for troubleshooting on site, operation status can be shared in real time and get assistance easily. Online chat function helps to support on site staff.

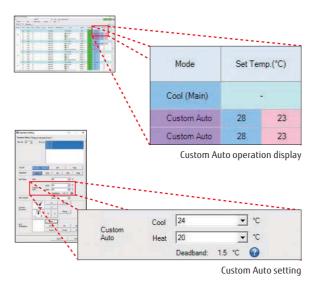


# Various trend graph display

Previously, only 3 kinds of each sensor value can be displayed. However, multiple graphs can be displayed in new Service Tool depending on the situation. The refrigeration cycle can be checked in detail.



# **Custom Auto Function**



### Function summary

	UTY-ASGXZ1
hat a share a shift to a far an target	
Interchangeability of equipment	•
Indication of equipment list	•
Operation control	•
Indication of refrigerant circuit diagram	•
Commissioning tool	•
Storage and CSV output of operating history (sensor data)	•
Indication of trend graph	•
Printing of trend graph	•
Monitoring and screen display of abnormalities	•
E-mail automatic transmission of abnormalities	-
Network Topology Analyzer	•
Remote Setting	•
System Time Setting	•
Central Release	•
Model Name Writer	•
Error Memory Reader	•
Time Guard Information	•
Automatic operation check for refrigeration cycle	•
Many different kinds of graph display	•
Automatic update of software	•
Custom Auto function	•
Display of individual louver control function	•
Display of human sensor control function	•
Refrigerant leakage detect function (Europe only)	•

### Personal computer system requirements

Operating system	Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)
СРИ	1 GHz or higher
Memory	• 1 GB or more (for Windows® 7 [32-bit], Windows® 8.1 [32-t • 2 GB or more (for Windows® 7 [64-bit], Windows® 8.1 [64-t
HDD	40 GB or more of free space
Display	1366 x 768 or higher resolution
Interface	USB port for U10 USB Network Interface and Software prote
Software	Internet Explorer® 11 or Microsoft Edge
•Echelon® U10 USB Network Interface -	TP/FT-10 Channel (Model number: 75010R) (Required for each

### <PACKING LIST>

Name and shape	Quantity	Application
WHITE-USB-KEY (Software protection key)		Software protection key to be connected to USB port on the S These products run only on a PC with WibuKey.
Personal computer that sa	tisfies the fol	lowing system requirements

178

# Refrigerant leakage detect Function

	detected	Adaptor	Device	Ref. No.	Unit No.
0/18/201	7 11:38:15 AM	Adaptor 1	Indoor unit	00	00
0/18/2017	7 11:06:36 AM	Adaptor 1	Outdoor unit	00	00:M

Refrigerant leak alart display

UTY-ASGXZ1

2-bit], and Windows® 10 [32-bit]) 4-bit], and Windows® 10 [64-bit])

tection key

n VRF Network.)

e Service Tool-installed PC.

# **WEB MONITORING TOOL**

# UTY-AMGXZ1

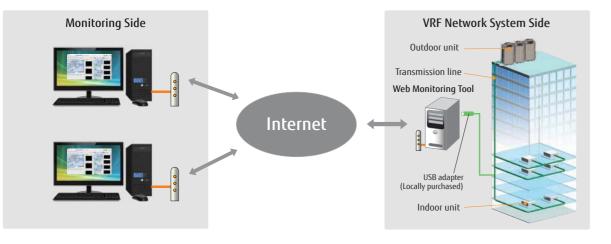
# Product features

- Troubleshooting is performed by monitoring each air conditioning unit remotely during periodical system checks.
- Error notification can be automatically transmitted to several locations using the internet \*1.
- Requires either a dedicated internet connection or public telephone line.
- Determination of an error occurrence can be made through error warnings and equipment status information obtained from a remote location.
- The monitoring data in a remote side can be optionally downloaded. And, this data can be displayed in offline mode of the service tool.
- Monitoring side computer is not required to install special software, requires only general web browser.

\*1: Use of internet mail system required.

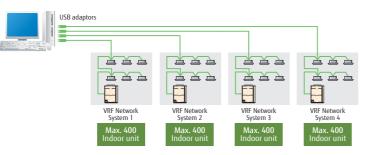
# Functions

# Web Monitoring System



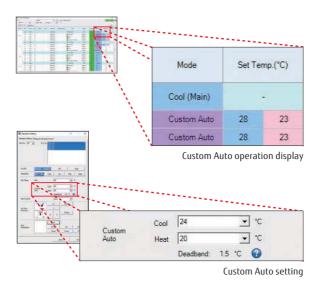
# Support 4 VRF network systems

USB adaptor (max. 4 adaptors per PC) permit, monitoring of up to 1,600 indoor units. Suitable for large-scale buildings or hotels.





# **Custom Auto Function**



### Function summary

			UTY-AMGXZ1
Interchangeability of equip	ment		•
Indication of equipment list			•
Operation control			•
Indication of refrigerant circ	uit diagram:		•
Commissioning tool			•
Storage and CSV output of o	perating hist	ory (sensor data)	•
Indication of trend graph	. ,		•
Printing of trend graph			•
Monitoring and screen disp	lay of abnorm	nalities	•
E-mail automatic transmiss			•
Network Topology Analyzer			•
Remote Setting			•
System Time Setting			•
Central Release			•
Model Name Writer			
Error Memory Reader			_
Time Guard Information			•
Automatic operation check	for refrinerati	ion cycle	_
Many different kinds of grag	-	ion ejele	•
Automatic update of softwa			
Custom Auto function	iii c		•
Display of individual louver	control funct	ion	
Display of human sensor control function			
Refrigerant leakage detect function (Europe only)			•
Personal compute	r system	requirements	
			UTY-AMGXZ1
Operating system		Microsoft® Windows® 7 Professional (32-bit or 64-bit) Microsoft® Windows® 8.1 Pro (32-bit or 64-bit) Microsoft® Windows® 10 Pro (32-bit or 64-bit)	SP1
CPU		1 GHz or higher	
Memory		<ul> <li>1 GB or more (for Windows<sup>®</sup> 7 [32-bit], Windows<sup>®</sup> 8.1</li> <li>2 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup> 8.1</li> </ul>	
HDD		40 GB or more of free space	
Display		1366 x 768 or higher resolution	
orspio?			re protection law
Interface		<ul> <li>USB port (for 10 USB Network Interface Max.4, Softwa</li> <li>Either of the following interface is required for remote Public Telephone Line: Modem is required</li> <li>Internet using LAN: Ethement port is required</li> </ul>	
Software		Internet Explorer® 11 or Microsoft Edge	
•Echelon® U10 USB Networ	k Interface – 1	TP/FT-10 Channel (Model number: 75010R) (Required for	each VRF Network.)
<packing list=""></packing>		, ,	
Name and shape	Quantity	Application	
WHITE-USB-KEY (Software protection key)	1	Software protection key to be connected to USB port on These products run only on a PC with WibuKey.	the Service Tool-installed PC.

Function summary	Ý		
			UTY-AMGXZ1
Interchangeability of equip	ment		•
Indication of equipment list			•
Operation control			•
Indication of refrigerant cire	cuit diagram		•
Commissioning tool			•
Storage and CSV output of c	perating hist	ory (sensor data)	•
Indication of trend graph			•
Printing of trend graph			•
Monitoring and screen disp	lay of abnorm	alities	•
E-mail automatic transmiss	ion of abnorn	nalities	•
Network Topology Analyzer			•
Remote Setting			•
System Time Setting			•
Central Release			•
Model Name Writer			-
Error Memory Reader			_
Time Guard Information			•
Automatic operation check	for refrigerati	ion cycle	_
Many different kinds of gra	-		•
Automatic update of softwa	ire		•
Custom Auto function			•
Display of individual louver	control funct	ion	•
Display of human sensor control function			•
Refrigerant leakage detect function (Europe only)		•	
Personal compute	er system	requirements	
			UTY-AMGXZ1
Operating system		Microsoft® Windows® 7 Professional (32-bit or 64-bit) S     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)	P1
CPU		1 GHz or higher	
Memory		<ul> <li>1 GB or more (for Windows<sup>®</sup> 7 [32-bit], Windows<sup>®</sup> 8.1 [3</li> <li>2 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup> 8.1 [6</li> </ul>	
HDD		40 GB or more of free space	
Display		1366 x 768 or higher resolution	
			anatastian kau)
Interface		<ul> <li>USB port (for 10 USB Network Interface Max.4, Software</li> <li>Either of the following interface is required for remote c</li> <li>Public Telephone Line: Modem is required</li> <li>Internet using LAN: Ethement port is required</li> </ul>	
Software		Internet Explorer® 11 or Microsoft Edge	
•Echelon® U10 USB Networ	k Interface – 1	rP/FT-10 Channel (Model number: 75010R) (Required for ea	ach VRF Network.)
<packing list=""></packing>			
Name and shape	Quantity	Application	
WHITE-USB-KEY (Software protection key)	1	Software protection key to be connected to USB port on th These products run only on a PC with WibuKey.	ne Service Tool-installed PC.

			UTY-AMGXZ1
nterchangeability of equip	ment		•
ndication of equipment lis			•
Operation control			•
Indication of refrigerant cire	cuit diagram		•
Commissioning tool	,		•
Storage and CSV output of o	operating hist	ory (sensor data)	•
Indication of trend graph	. ,		•
Printing of trend graph			•
Monitoring and screen disp	lav of abnorn	alities	•
E-mail automatic transmiss			•
Network Topology Analyzer			•
Remote Setting			•
System Time Setting			
Central Release			•
Model Name Writer			-
Error Memory Reader			
Time Guard Information			•
Automatic operation check	for refrigerat	ion cyclo	-
Many different kinds of gra		on cycle	-
1			•
Automatic update of softwa Custom Auto function	are		•
			-
Display of individual louver			•
Display of human sensor co			•
Refrigerant leakage detect	function (Eur	ope only)	•
Personal compute	er system	requirements	
Personal compute	er system	requirements	UTY-AMGXZ1
	er system	requirements  • Microsoft® Windows® 7 Professional (32-bit or 64-bit) • Microsoft® Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Pro (32-bit or 64-bit)	
Operating system	er system	Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Professional (32-bit or 64-bit)     Microsoft <sup>®</sup> Windows <sup>®</sup> 8.1 Pro (32-bit or 64-bit)	
Operating system	er system	Microsoft® Windows® 7 Professional (32-bit or 64-bit)     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)	SP1 [32-bit], and Windows® 10 [32-bit])
Operating system CPU Memory	er system	Microsoft® Windows® 7 Professional (32-bit or 64-bit)     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)     I GHz or higher     1 GB or more (for Windows® 7 [32-bit], Windows® 8.1	SP1 [32-bit], and Windows® 10 [32-bit])
Personal compute Operating system CPU Memory HDD Display	er system	Microsoft® Windows® 7 Professional (32-bit or 64-bit)     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)     GHz or higher     1 GHz or more (for Windows® 7 [32-bit], Windows® 8.1     2 GB or more (for Windows® 7 [64-bit], Windows® 8.1	SP1 [32-bit], and Windows® 10 [32-bit])
Operating system CPU Memory HDD Display	er system	<ul> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Professional (32-bit or 64-bit)</li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 8.1 Pro (32-bit or 64-bit)</li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 10 Pro (32-bit or 64-bit)</li> <li>1 GHz or higher</li> <li>1 GB or more (for Windows<sup>®</sup> 7 [32-bit], Windows<sup>®</sup> 8.1</li> <li>2 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup> 8.1</li> <li>40 GB or more of free space</li> <li>1366 x 768 or higher resolution</li> <li>USB port (for 10 USB Network Interface Max.4, Softwa</li> <li>Either of the following interface is required for remote</li> <li>Public Telephone Line: Modem is required</li> </ul>	SP1 [32-bit], and Windows® 10 [32-bit]) [64-bit], and Windows® 10 [64-bit]) re protection key)
Operating system CPU Memory HDD Display Interface	er system	Microsoft® Windows® 7 Professional (32-bit or 64-bit)     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)     GHz or higher     1 GHz or more (for Windows® 7 [32-bit], Windows® 8.1     2 GB or more (for Windows® 7 [64-bit], Windows® 8.1     40 GB or more of free space     1366 x 768 or higher resolution     USB port (for 10 USB Network Interface Max.4, Softwa     Either of the following interface is required for remote     - Public Telephone Line: Modem is required     - Internet using LAN: Ethement port is required	SP1 [32-bit], and Windows® 10 [32-bit]) [64-bit], and Windows® 10 [64-bit]) re protection key)
Operating system CPU Memory HDD Display Interface Software		<ul> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Professional (32-bit or 64-bit)</li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 8.1 Pro (32-bit or 64-bit)</li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 10 Pro (32-bit or 64-bit)</li> <li>1 GHz or higher</li> <li>1 GB or more (for Windows<sup>®</sup> 7 [32-bit], Windows<sup>®</sup> 8.1</li> <li>2 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup> 8.1</li> <li>40 GB or more of free space</li> <li>1366 x 768 or higher resolution</li> <li>USB port (for 10 USB Network Interface Max.4, Softwa</li> <li>Either of the following interface is required for remote</li> <li>Public Telephone Line: Modem is required</li> </ul>	SP1 [32-bit], and Windows® 10 [32-bit]) [64-bit], and Windows® 10 [64-bit]) re protection key) connection:
Operating system CPU Memory HDD Display Interface Software •Echelon® U10 USB Networ <packing list=""></packing>		Microsoft® Windows® 7 Professional (32-bit or 64-bit)     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)     I GHz or higher     I GB or more (for Windows® 7 [32-bit], Windows® 8.1     2 GB or more (for Windows® 7 [64-bit], Windows® 8.1     40 GB or more of free space     1366 x 768 or higher resolution     USB port (for 10 USB Network Interface Max.4, Softwa     Either of the following interface is required for remote     - Induct of the following interface is required     Internet using LAN: Ethement port is required     Internet Explorer® 11 or Microsoft Edge     IP/FT-10 Channel (Model number: 75010R) (Required for	SP1 [32-bit], and Windows® 10 [32-bit]) [64-bit], and Windows® 10 [64-bit]) re protection key) connection:
Operating system CPU Memory HDD Display Interface Software		Microsoft® Windows® 7 Professional (32-bit or 64-bit)     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)     GHz or higher     1 GB or more (for Windows® 7 [32-bit], Windows® 8.1     2 GB or more (for Windows® 7 [64-bit], Windows® 8.1     40 GB or more of free space     1366 x 768 or higher resolution     USB port (for 10 USB Network Interface Max.4, Softwa     Either of the following interface is required for remote     - Public Telephone Line: Modem is required     Internet using LAN: Ethement port is required	SP1 [32-bit], and Windows® 10 [32-bit]) [64-bit], and Windows® 10 [64-bit]) re protection key) connection:

# Refrigerant leakage detect Function

	e status immediately.			
Time detected	Adaptor	Device	Ref. No.	Unit No.
10/18/2017 11:38:15 A	AM Adaptor 1	Indoor unit	00	00
10/18/2017 11:06:36 A	AM Adaptor 1	Outdoor unit	00	00:M

Refrigerant leak alart display

# SATISFACTION FOR ALL CUSTOMERS

# CE



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ISO 9001 Certified number: ISO 14001 Certified num 01 100 79269 CNBJ312244-UK

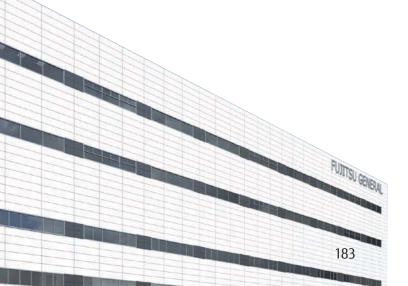
Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.



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